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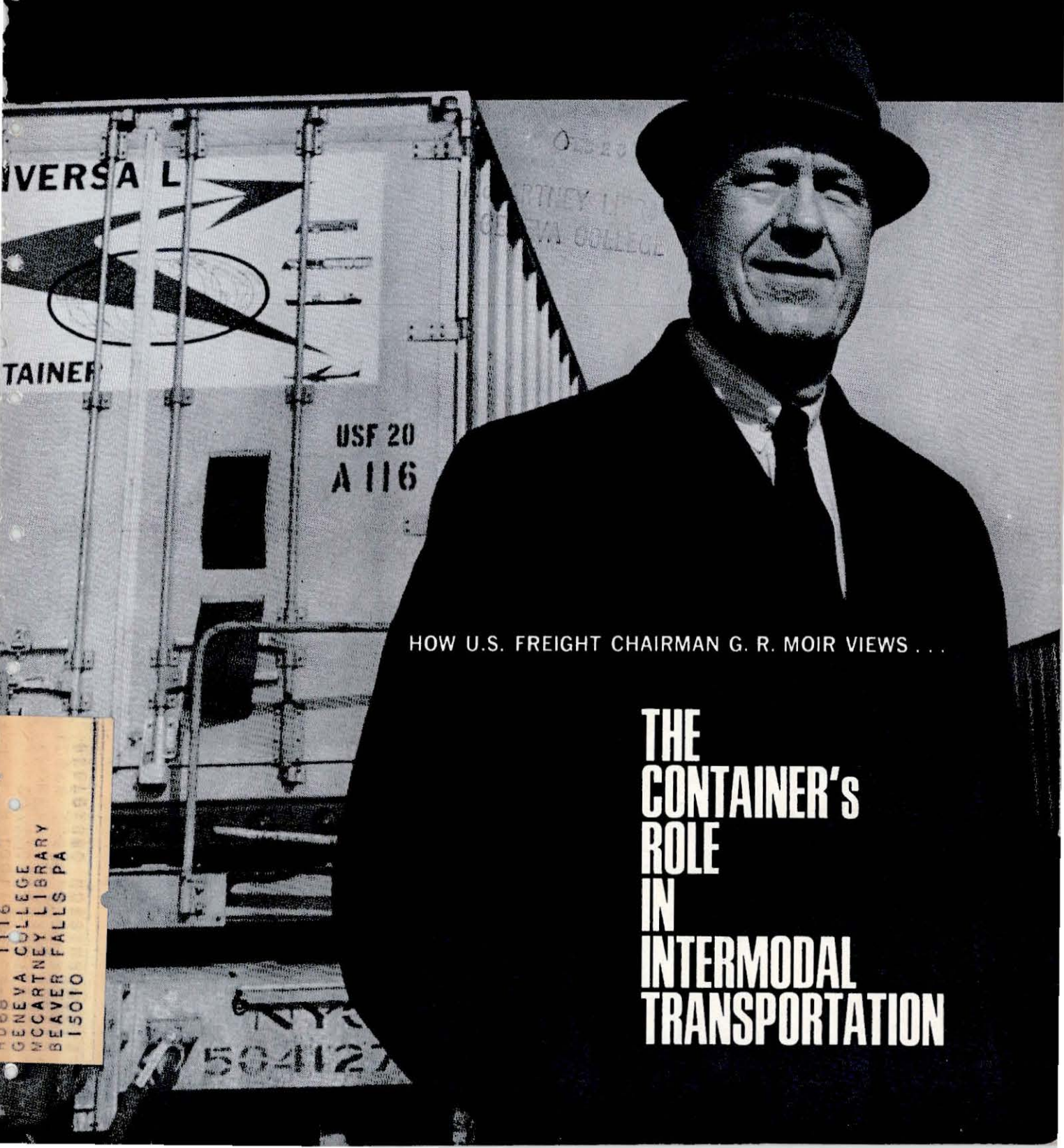
February 26, 1968

RAILWAY AGE

THE TRANSPORTATION WEEKLY



HOW U.S. FREIGHT CHAIRMAN G. R. MOIR VIEWS . . .

THE CONTAINER'S ROLE IN INTERMODAL TRANSPORTATION

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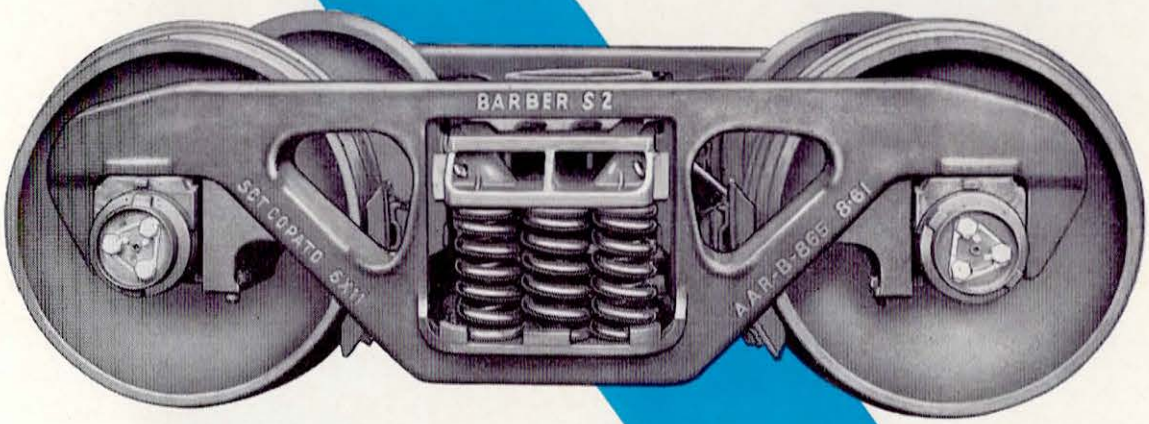

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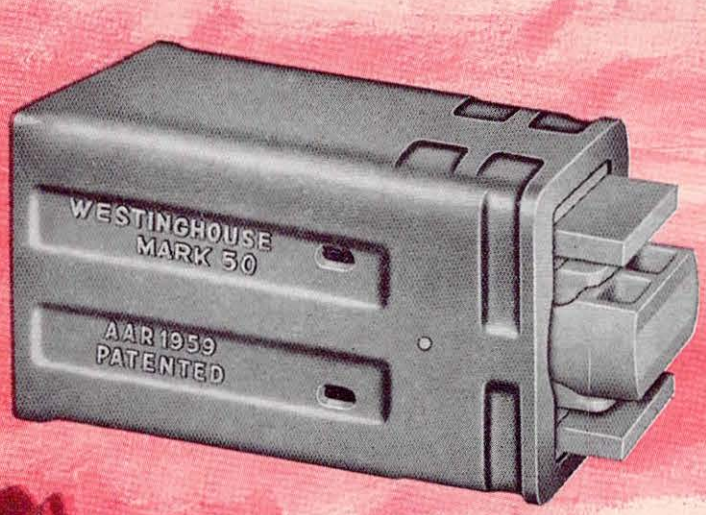

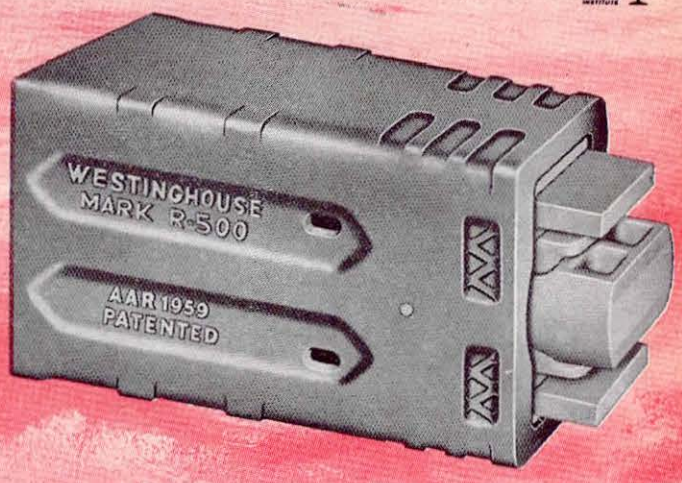

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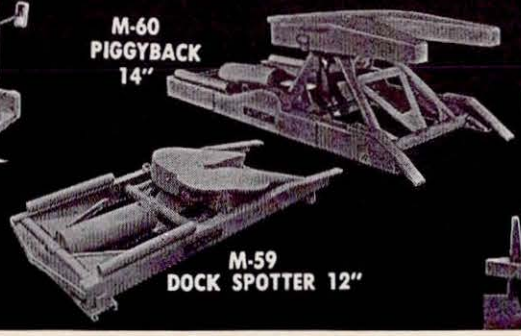

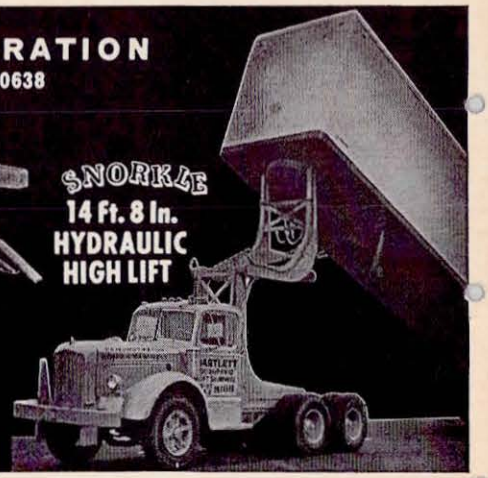

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RAILWAY AGE

February 26, 1968 • Vol. 164, No. 8

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. . . AND COMING NEXT WEEK

The big Pittsburgh urban transportation conference will focus on progress toward solutions. In the March 4 issue of Railway Age, solutions in financing are discussed by Dr. William Ronan, chairman of New York's new super-transit agency; solutions in design by Edmund Bacon, Philadelphia's celebrated city planner. A solution proposed for Calgary in a new study is rapid transit.

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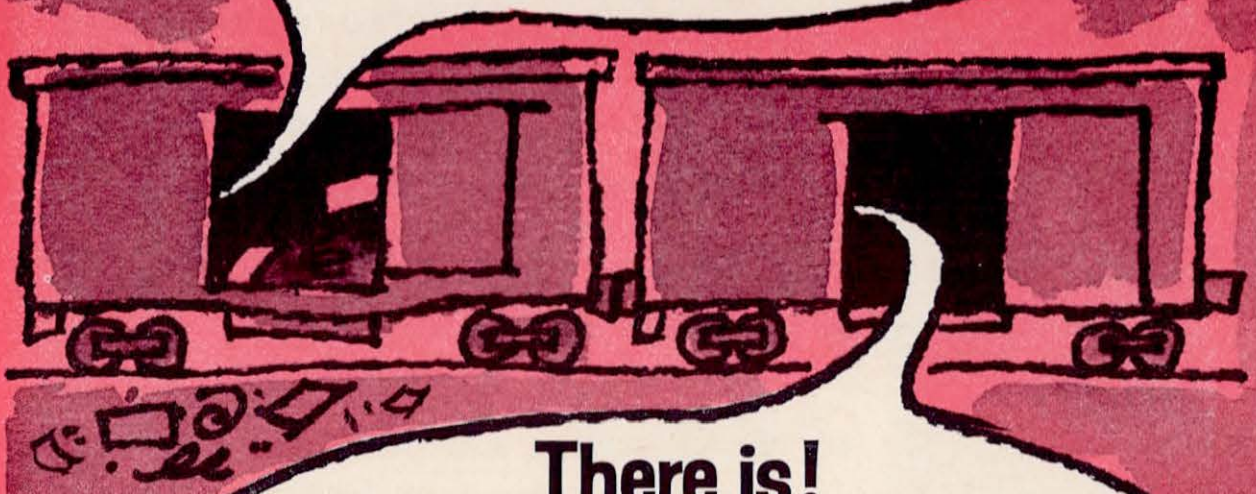

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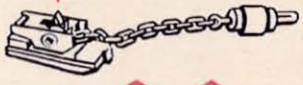
Thanks, Joe! We hear you. Tell them, too, that M-F has load securement systems from the simplest to the most sophisticated... from lading anchors to winch and chain mechanisms. 

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SHORT AND SIGNIFICANT

Penn Central's first NH loan is $5 million

Raymond C. McCron (left), Penn Central treasurer, is shown delivering a $5-million check to J. Edward Berg, New Haven treasurer, under an agreement by which PC can loan New Haven up to $25 million over the next three years. Penn Central waived the 30-day waiting period contained in the ICC-approved loan agreement of Nov. 16, 1967. New Haven trustees said cash on hand Feb. 1, about $2.3 million, was so low that early PC help was needed to assure continued operations. New Haven's weekly pay-and-supplies expense is about $1.75 million. Under the agreement, New Haven can borrow the amount by which its cash falls below $5 million, plus $2.5 million.

Labor, politics will be features of TC meeting

The 1968 outlook for transport labor and profits, along with a look at containers, will be features of the fourth annual management conference at the Transportation Center at Northwestern University March 18-20. The conference will bring together labor and management executives from all transport modes, plus investment analysts—for an expected 120 participants.

Shippers seek action against eastern delays

Strong action by President Johnson, the Congress, and the Agriculture Department for restoration of dependable fresh-produce delivery is being sought by the United Fresh Fruit and Vegetable Association in a recently-filed resolution. Citing the failure of Association efforts to regain dependable service after the 1964 eastern roads' cancellation of established guaranteed schedules, Alan T. Rains, UFF&VA executive vice president, says, "We have on one hand the announced policy of Congress, orderly marketing predicated on the even flow of farm goods to market, and on the other hand the eastern railroads embracing a policy that is in complete discord with the policy of Congress."

Bright outlook for railroads, says oil man

Electronic programming of freight movements, realistic response to market needs, and expanding inter-modal operations add up to the "best freight rail service the consumer has ever had," Franklyn M. Moffit, Ashland Oil & Refining vice president, told shareholders last week. And Ashland's part is equally bright: "By good fortune, we are strategically located (Ashland, Ky.) to serve some 30 railroads at a time when the railroads are modernizing and moving to capture a bigger share of the transportation market."

Santa Fe reaches "understanding" with pipeline firm

Soon after announcing plans for its own pipeline (RA, Jan. 1/8, p. 36), Santa Fe says it has reached an "understanding" with Gulf Central Pipeline Co., Houston, whereby ATSF would become a "substantial" Gulf stockholder. Stock acquisition would come through the Santa Fe subsidiary, Chanslor-Western Oil & Development Co. The recently-formed Gulf company will build and operate a $65-million, 2,000-mile ammonia pipeline from Louisiana to northern Missouri, with laterals into Iowa, Nebraska, Indiana and Illinois. Gulf already has shipping commitments from Monsanto Chemical Co., St. Louis, and Central Farmers Fertilizer Co., Chicago. Operations will start in 1969.

MONDAY MORNING REPORT

THE RAILROADS AS RECRUITERS

People tend to have strong opinions about the efforts railroads are making to attract the technicians, the supervisors, the managers of tomorrow. Some say it proudly: The railroads are doin' all right, Jack. Some say it angrily: The railroads had better wake up to the campus crush and get with it. Some say it quietly: Let's find out exactly what we ought to be doing better—and then let's do it. Just possibly, an unusual kind of meeting in Pittsburgh the other night may have provided a few new insights—for railroad men and for the academic community.

IN PITTSBURGH, COMMON GROUND ON A COMMON PROBLEM

Formality and informality were carefully blended, in a reception/dinner/program put together by the Community Relations Committee of the Pittsburgh railroads. In little more than four hours, experts covered railroad personnel needs and opportunities in all major areas, educators got a look at the RPI's view of "the new railroads"—and dozens of conversations broke out, as railroad men and professors found common ground for discussing a problem that affects them all.

FROM THE ACADEMIC SIDE, SPECIFIC SUGGESTIONS . . .

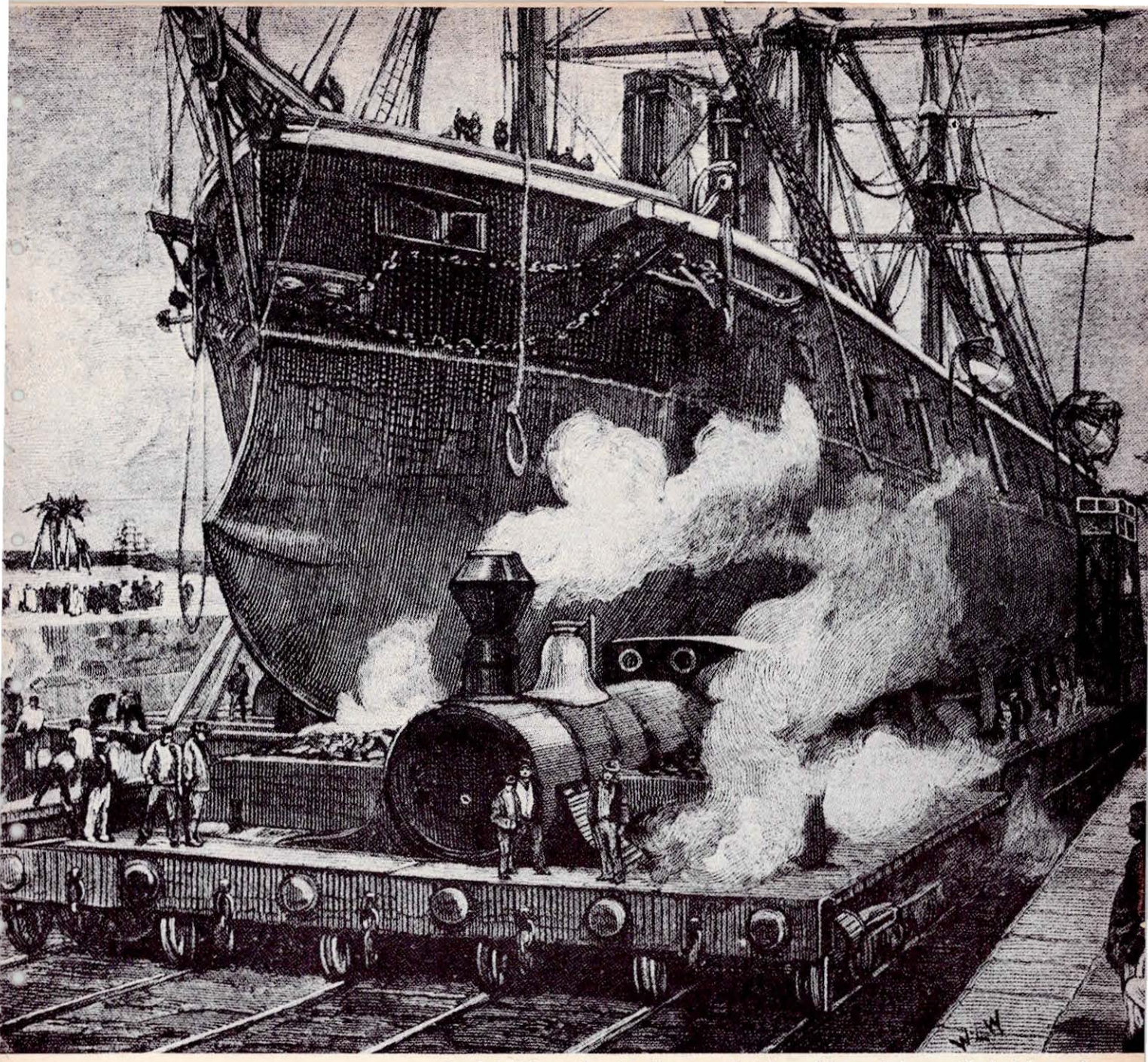
At the end of the session, the profs and the administrators contributed their evaluation. Some comments were predictable: Railroads should review their starting-salary policies; railroads should offer more summer-job programs. But other comments hit less-well-traveled routes: Railroads ought to introduce more youth into their recruiting; railroads ought to be more active in sponsoring university-oriented research programs.

. . . AND A PLUG FOR "POSITIVE THINKING"

Certain of the split-personality aspects of railroading seemed to show through. Several of the university people spoke of the need for communicating in better fashion about industry problems, about industry opportunities. One professor gently chided the panelists for what he termed an "apologetic tone . . . because I feel you have many positive features." And there was the normal amount of uncertainty about recruiting goals. As one personnel man put it later, "we still want to avoid the head-hunter image—because we're looking for career people, not just people to stay with us through the next defense contract."

ONE CONFERENCE DOWN—AND MORE TO COME

Planners of the Pittsburgh career conference might do a few things differently next time, mainly to promote freer general idea exchange. Meantime, all concerned are satisfied that a good start has been made—on a program that's going to spread.



Captain Eads' Dream: A marine railway across the Isthmus of Panama. Entire steamships loaded on cradles were to be drawn by two powerful locomotives over twelve tracks from one sea to the other and curves were to be eliminated through the agency of turntables located at strategic points. Nothing came of it.
The American West, Lucius Beebe & Charles Clegg

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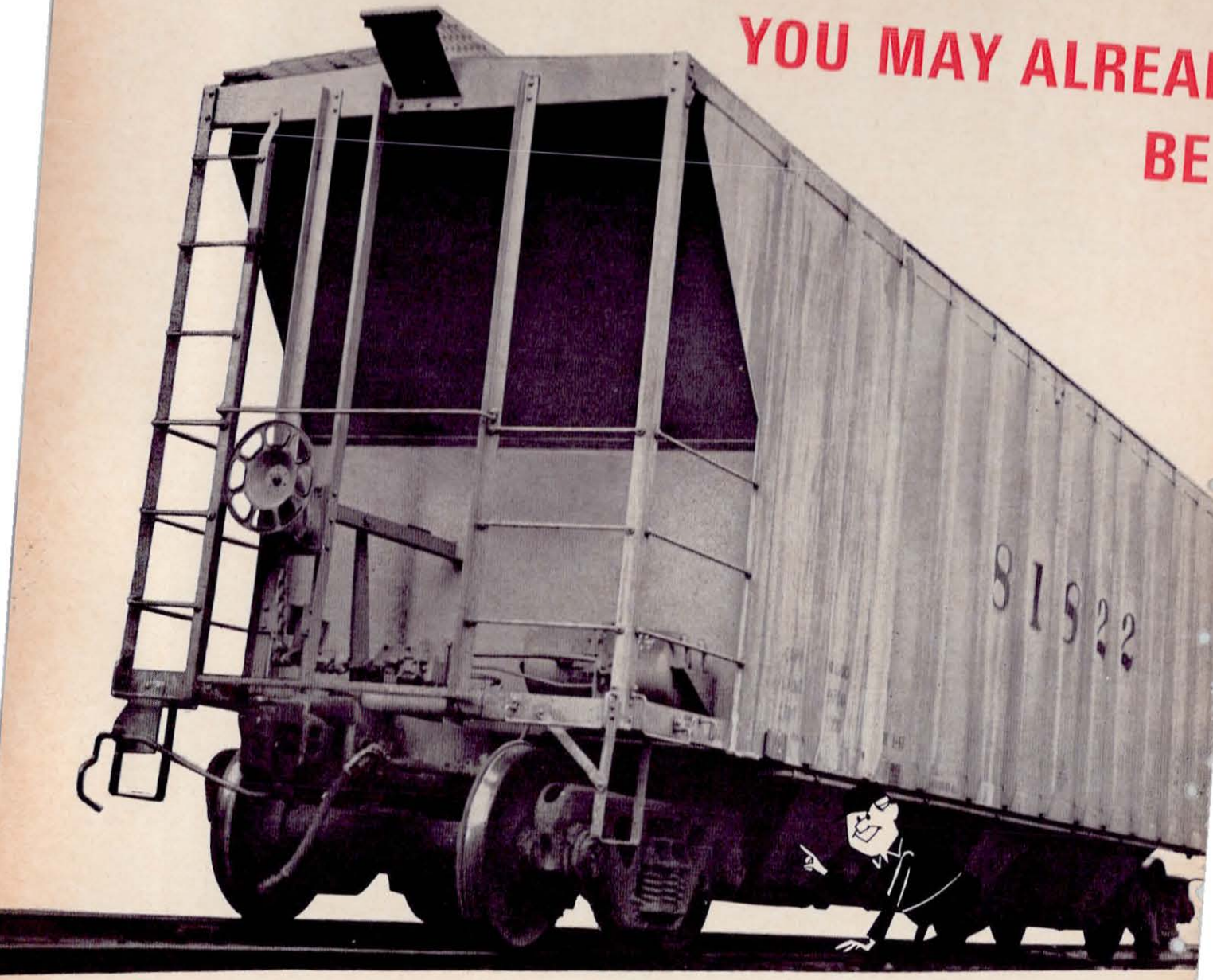
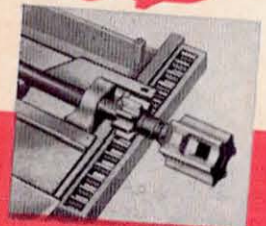
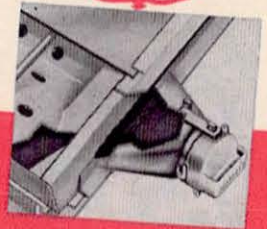


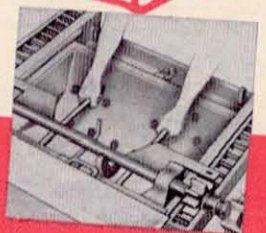


Single operating shaft provides easy, uncomplicated opening of the gate.

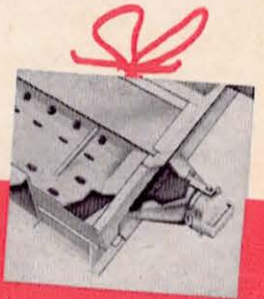
Flexibility permits easy control of flow in either the vacuum or gravity portion.



Clean-out door design eliminates stockpiling of material such as corn kernels, nuts, etc. and minimizes problem of protein loss.



Vacuum portion can be exposed for easy inspection and cleaning.



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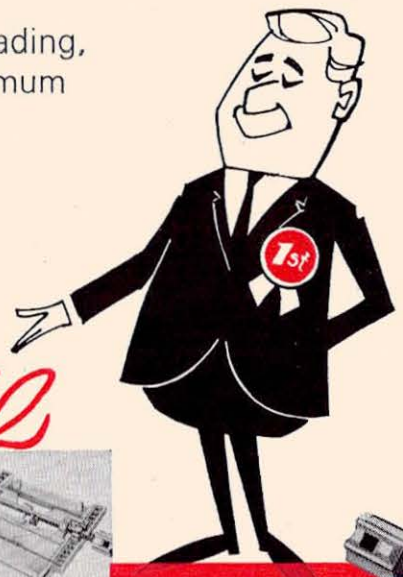

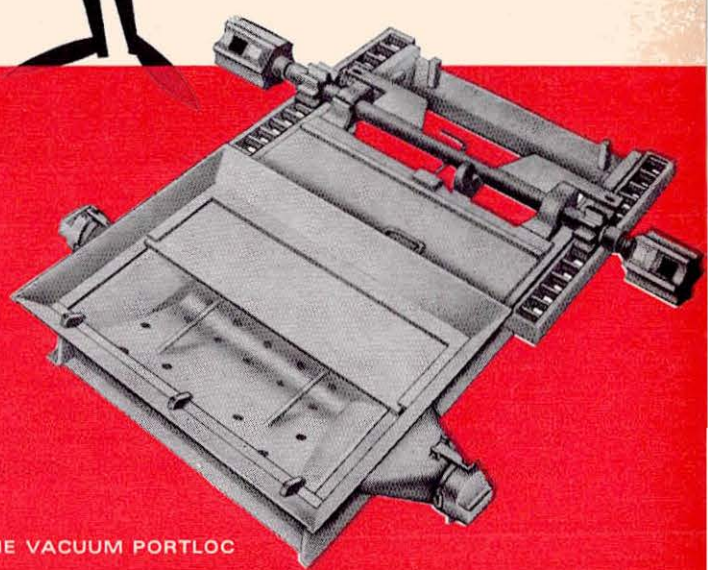

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RAILWAY AGE
THE TRANSPORTATION WEEKLY
February 26, 1968

WEEK AT A GLANCE

First major merged operation opened by PC

Just 19 days after Penn Central merger was consummated, the new partners put their first major new merged facility into operation—an $11.5-million coal storage and shiploading complex at Ashtabula, Ohio. Coal unloaded from the first train and from others to follow will be stored until the opening of the Great Lakes shipping season in April—about 50,000 tons of coal from mines in southwestern Pennsylvania and northern West Virginia will be on the ground by the end of February. The coal, bound for Canada, will be unloaded by a highly-automated handling system and then transferred to lake ships by a high-speed traveling loader at an average rate of 6,000 tons per hour. In full operation, the facility will be able to handle up to six million tons per year. Initial ground-storage capacity is approximately one million tons. Construction of the facility, by Pennsylvania, began last summer.

SP retiring German diesels; keeps U.S. units

After four to seven years' service, the cost and complexity of repairs to their high-speed diesel engines are relegating Southern Pacific's 21 German-built 3,600-hp diesel-hydraulic freight locomotives to scrap. SP has, however, indicated its approval of the hydraulic transmission as being competitive with the more conventional electric drive. Three 4,000-hp diesel-hydraulics built by Alco in 1964 (above) will remain in service; SP reports their "better performance, adaptability to regular repair practices and acceptable maintenance costs" allow them to be continued under evaluation.

C&NW and CGW act to speed their merger

Time is of the essence in getting Chicago & North Western and Chicago Great Western merged—and so the two roads are agreed to protective conditions for Soo Line, rather than choosing to take the delays which a further court fight would involve. In a letter to the ICC, the two roads are asking approval of conditions previously recommended by an examiner but rejected by the full Commission—improved direct interchange at Chicago and at Minneapolis for Soo, and access to a CGW industrial district near St. Paul. As C&NW and CGW see it, the conditions may be "overly compensatory . . . [but] their grant is the only way to avoid further injury to the national transportation system which will result from further delay." Great Western, it's noted, suffered a decline of almost 10% in freight revenue last year, and the road would have posted a deficit had it not been for non-recurring and retroactive income developed from settlement of the transcontinental divisions case. Soo is studying the new C&NW-CGW move.

Cyanamid enters car utilization field

American Cyanamid Co., the Wayne, N.J., chemical producer, last week announced development of a computer system that will help companies with their own rail fleets get better use of the cars.

Called Rail-Con, the system is available from Concept Implementation Corp., a Wyckoff, N.J., computer consultant firm licensed by Cyanamid for sales of the new product. A Cyanamid spokesman said Rail-Con's price could not be disclosed.

The system is designed to help re-

duce over-all transportation costs through efficient control of fleets mainly by providing daily and monthly reports on the location and availability of cars and on mileage allowance provided by railroads. It best would serve companies with "a few hundred cars, such as tank cars, hopper cars and specialized equipment," the spokesman said. These might be grain, chemical, appliance and food companies.

Dr. R. M. DeBaun, Cyanamid data processing director, called Rail-Con the "latest advance" in a systems trend toward specialized perfected programs that harness third-generation computer technology to solve specific business problems.

"Its value lies in the fact that the complex distribution systems can now be linked together electronically to provide timely information for traffic and sales management," DeBaun said.

Milwaukee Road opens a Tokyo office

With a rising volume of import-export traffic between Pacific Northwest ports and Japan—and with the potential for substantial further increases in overseas business—Milwaukee Road is joining in the western-railroad sales movement in Japan, with the opening of a new traffic office in Tokyo.

For Soo Line, a new station concept

Beginning March 1, Soo Line freight stations at two points in Wisconsin and one in Michigan will become "freight service centers"—Soo's approach to the central-station-with-traveling-agents concept. Eleven other stations will be closed. But, Soo says, "they and a number of others that have been closed in years past will now be classified 'open' stations." The shipper's choice: He can do business in his own office with Soo's traveling agents; or he can call the service center direct, toll-free.

GUS WELTY

LINES ON LABOR

THERE'S NO CREATIVITY about a picket line. But it's becoming increasingly clear that labor-management creativity, not the exercise of labor or management muscle, offers the best hope—perhaps the only long-range hope—for rail employment improvement, in number and quality of jobs.

UNNECESSARY JOBS cannot, will not, be saved—no matter how many times the pickets march. But the time being wasted now in trying to repeal the law of redundancy is time, valuable time, being stolen away from the far more important task of trying to build an industry with better job opportunities.

LABOR UNIONS don't create jobs, and neither does management, in the true sense. Jobs are created, and improved, through a complex formula in which the customer has the final say. But an impartial observer looking at things today might find both labor and management guilty of shoving that principle down into second place, or worse—the unions by creating artificial need for the unneeded, management by building success on cost-cutting rather than on business-getting service improvement.

MARKETING CREATIVITY may hold the key to success, whether railroads remain railroads or whether they become transportation companies or even conglomerates. But marketing creativity, in large part, involves departures from traditional methods of operation. Management, to some extent, can be faulted for the reluctant way in which it has sometimes embraced the new and the different. Rail labor unions, however, seem to display a near-hatred for innovation—where it involves changed work patterns. Or, if that seems unfair, just say that the organizations could spot management a good head start and still win a 100-yard-dash to the wire marked "status quo."

RAILROAD MARKETING MEN today are full of ideas. They know how their railroads could get more business, make more money, provide higher-paying jobs. They also know that many of these ideas depend upon labor's willingness to go along

WILL LABOR TAKE A CHANCE? From several indications, yes—if the percentages favor success, in terms a union leader can translate to the men he represents. It's a matter of trading—old arguments for new opportunities.

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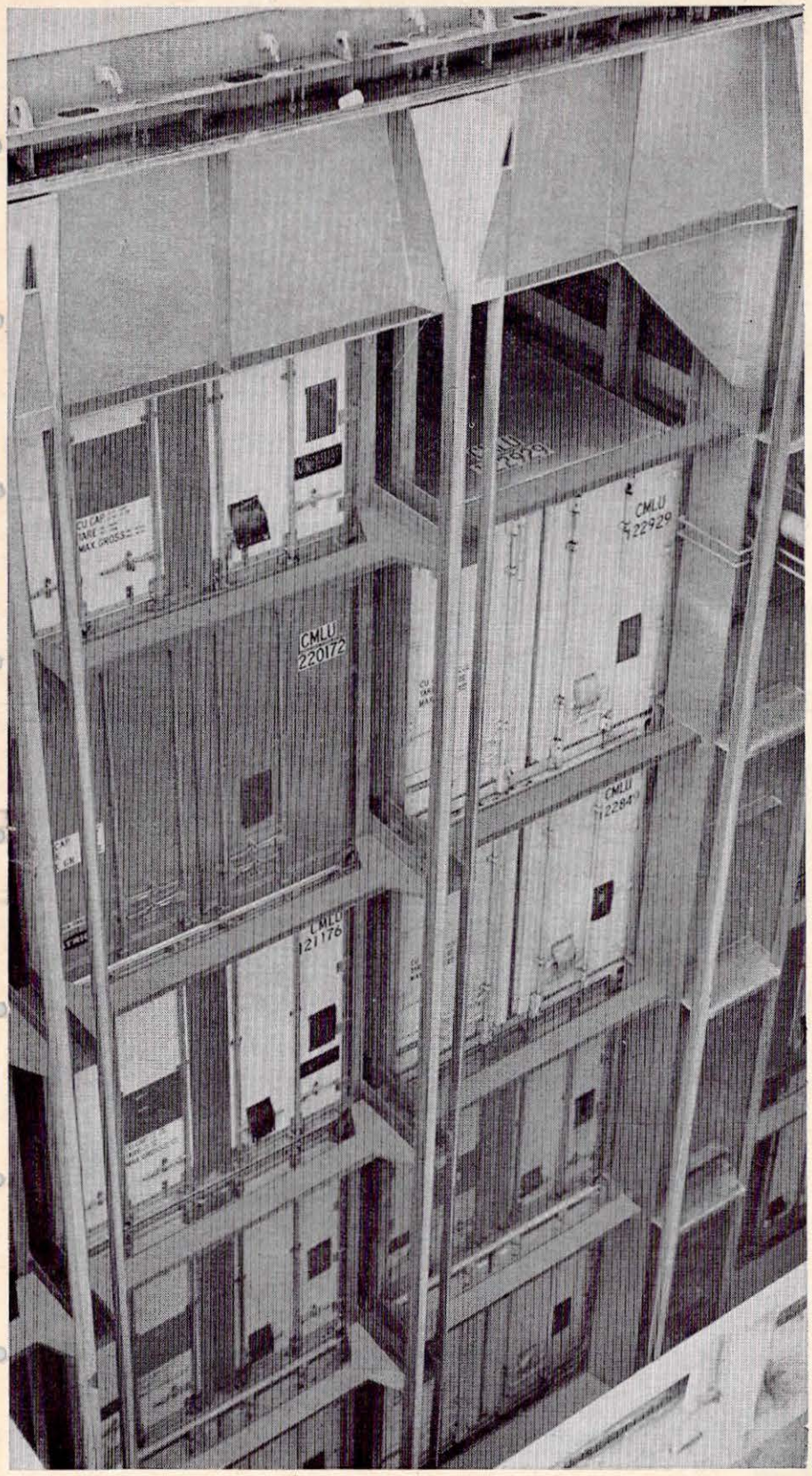

It all stacks up to savings

For an ocean shipment, there's no substitute for secure stowage. And nothing is more secure than a containerized shipment in an all-container ship. Damage-free, pilfer-proof transportation means big savings in packing, strapping, handling and insurance. Try it and see.

CONTAINER MARINE LINES

A DIVISION OF
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Direct container service to Amsterdam, Bremen, LeHavre, Antwerp, Rotterdam, Hamburg, Felixstowe, Grangemouth and New York.

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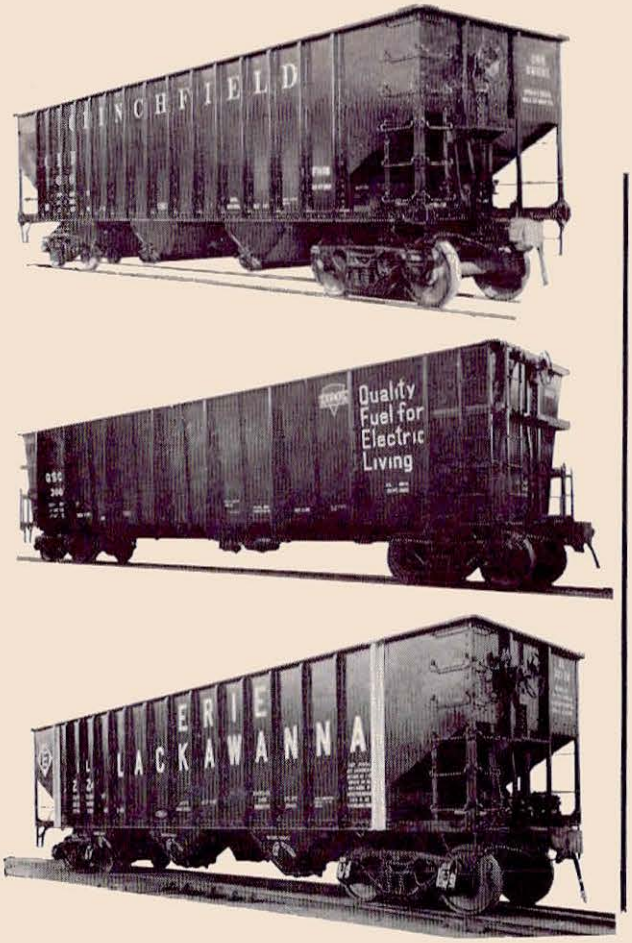
By 1975 an additional 80,000,000 tons of coal will move by rail to power companies annually.

Will your car fleet be ready for the job?

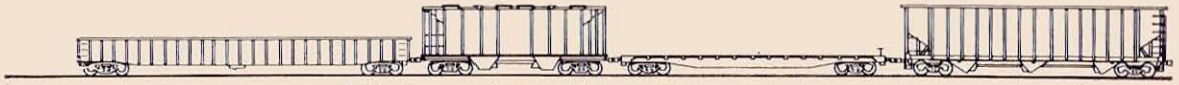


That's the forecast. Even with unit trains and fast turn arounds many more cars will be needed to handle that traffic. Coal hauling railroads are already considering this in their planning. The variety of cars envisioned is reflected in recent Greenville designs:

- ☐ **New, high-sided gondolas, some with rotary couplers for unit train service.**
- ☐ **Triple and quadruple cross hoppers for unit trains.**
- ☐ **Bottom dump equipped with hydraulic controlled, longitudinal doors.**
- ☐ **Conventional triple hoppers for general service.**

With new coal fields opening up, more railroads than ever will be involved with this major hauling problem. If your road is one of them, it's time you talked with Greenville. Regardless of your needs, Greenville has the cars for the job. Let's get together and discuss them.

GREENVILLE STEEL CAR COMPANY
Subsidiary of Pittsburgh Forgings Company
GREENVILLE, PENNSYLVANIA



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At one time it would have cost too much to link this small railway station to the line's main microwave system. But not any more—thanks to the 71F by Lenkurt.

Lenkurt's 71F is a 1 to 300-channel 2 GHz microwave radio system designed specifically to provide economical low density "feeder" routes from communications main lines to remote railway stations and control centers.

Its 2-Watt output improves path reliability at the same time as it decreases antenna size and tower loading. The radio cabinet and all plug-in units are r-f shielded to eliminate VHF interference. And its modular construction means easy maintenance and few spare parts. What could be more important when your 71F is miles from the nearest technician?

For more information about the economical 71F, call or write Lenkurt Electric Co., Inc., San Carlos, California.

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CONTAINERIZATION IS WHAT'S HAPPENING

Containerized shipments to and from the United States... to and from Europe... to and from the Far East... to and from Central and South America... are criss-crossing the U.S.A.

Are you prepared to cash in?

Shipments go from port to port, from port to inland terminal or inland terminal to port. It's a new source of business and profit for those carriers who handle containerized freight. This is what's happening today! Are you prepared to cash in? With the experience and knowledge gained from world-wide operations, Fruehauf has the information to help you plan a profitable course of action. Check with your nearest Fruehauf representative. **Fruehauf Division, Fruehauf Corporation, 10940 Harper Avenue, Detroit, Michigan 10942**

Warehousing in motion

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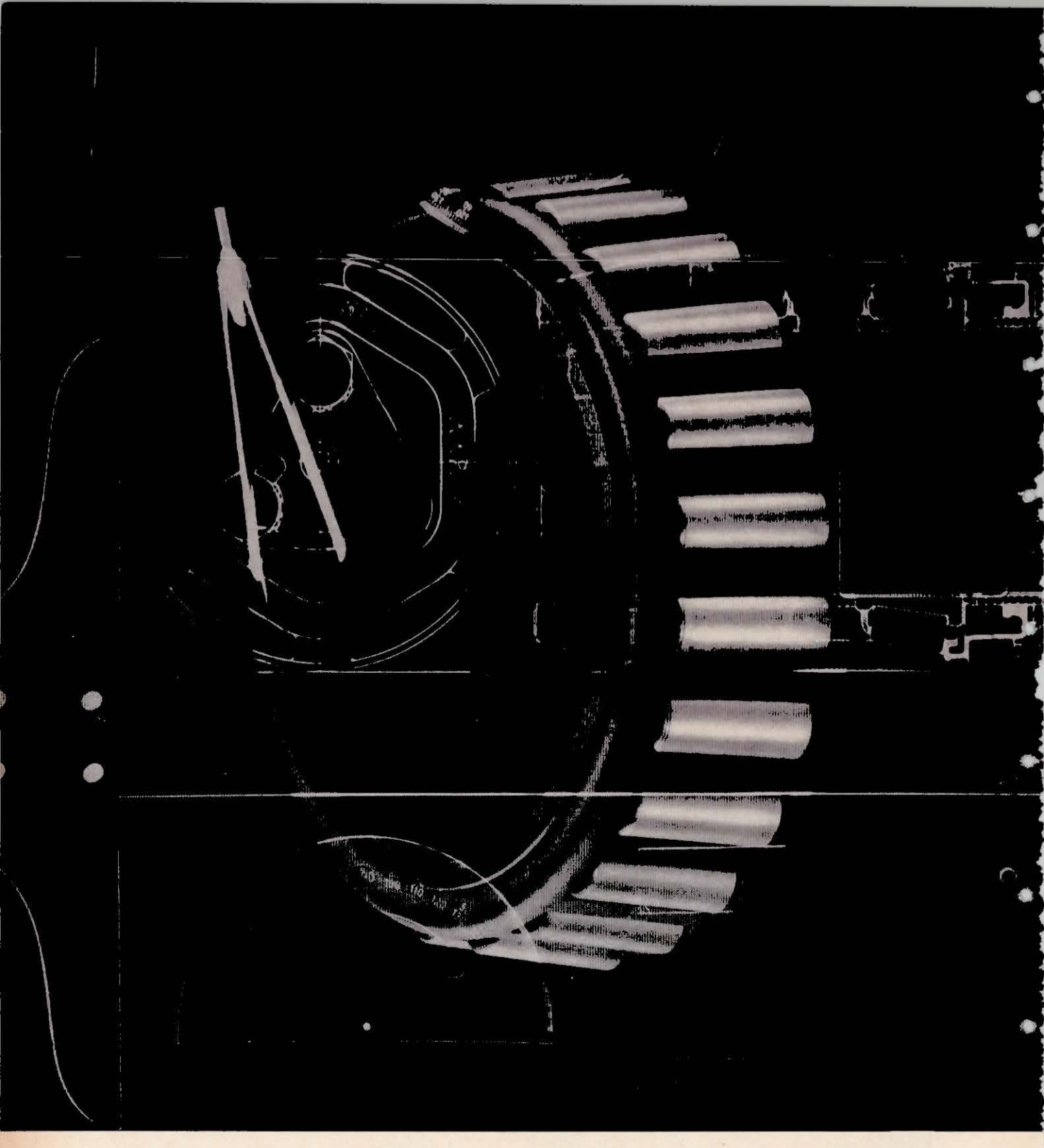

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Brenco *crown-taper* roller bearings are the most modern of all.

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PACECO Transtainers® outperform any competitor's piggyback loader. They've got to! As the world's leading designer and manufacturer of container and piggyback handling cranes, we're not about to let our competition outperform us. The "express" model above, one of two operating in B&O/C&O's Chicago piggyback yard, loads in approximately 90 seconds, straddles two roadways and two railroad tracks at a time, saves turning space through right angle wheel movement. For more specifics, give us a call or write for our Advanced Systems Brochure. Our materials handling engineers are available for consultation.

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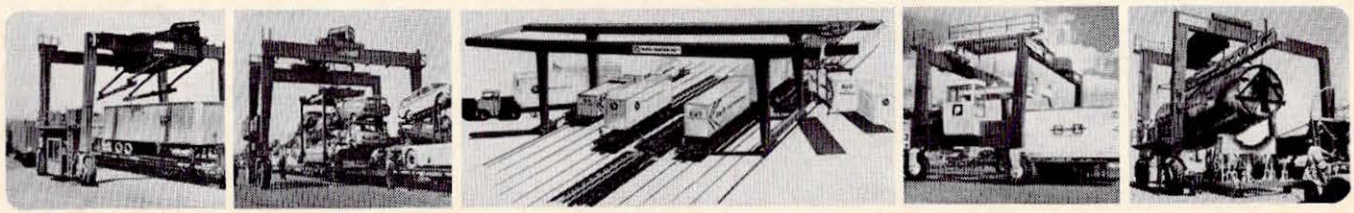

Rubber Tired and Rail Mounted PACECO Transtainers
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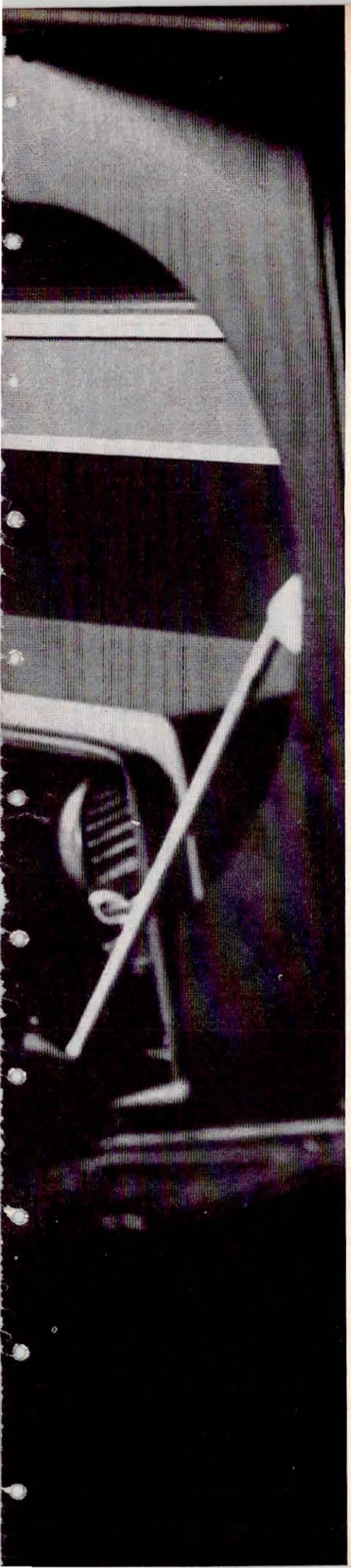

Let Dave Strom run your railroad for one night.

He may save you a million dollars.

He's done it before.

One night he saved $1,022,400 for a big eastern railroad.

He programmed our computer with the tonnage that 22 actual locomotives were hauling 438,000 train miles a year. Factored in were the number of runs, the grades encountered, schedules, drag and piggyback service—in fact, all the conditions those locomotives encountered during the year.

He found that 12 Century 630 locomotives could have done the same job—saving $395,900 in maintenance costs, $54,500 in fuel and oil and $69,900 in reduced down-time. Another $502,100 could have been gained in increased revenue from the 13% more tonnage they could haul. That adds up to a whopping $1,022,400.00

He's got all the facts to prove it.

And he can do the same for you. A Motive Power Study can forecast accurately and quickly which ALCO locomotives will perform best under the exact conditions you set.

All before you invest a dime in new equipment.

Why not use our service. We may save you a million.

Locomotive and Engine Products Division, ALCO Products, Inc., Schenectady, N.Y. 12305, a subsidiary of WORTHINGTON Corporation.

ALCO

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Leasing railroad cars is the last thing we do

Which is a good reason why North American Car should be the first company you talk to about your shipping problems

WE OPERATE on the realistic assumption that *how* you ship your product is only one piece in the logistics puzzle of *what* you ship, *where* you ship and *when* you ship.

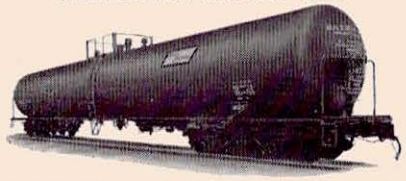
Therefore, in order to fit ourselves as helpfully as possible into your marketing pattern, it is our policy to view your problem in its totality—your product, your markets, your distribution. Only then do we talk about our railroad cars and how they can solve a specific shipping problem, or reduce your transportation costs, or increase the overall efficiency of your distribution operation.

The companies we now serve include many well-known names, and their products range the spectrum from solids to liquids, from automobiles to chemicals, from pellets to powders, from petroleum to plastics. In many cases, as new products or new techniques have given rise to new shipping problems, we have been able to design and create new types of cars to solve those problems. The way we come up with the answers must appeal to a lot of shippers, because they have made us the fastest-growing company in the business.

We invite you to call us—not to talk about our railroad cars, but to discuss your marketing and distribution problems. Sometimes one leads to the other.

North American Car Corporation, 77 South Wacker Drive, Chicago, Illinois 60606

THE GIANT JUMBO CAR



A typical North American innovation

This new 150-ton non-pressure tank car is designed to haul lubricating and vegetable oils, packing house products and chemicals. The car can handle commodities weighing up to 8 lbs. per gallon, with a total weight on the rails of 394,000 lbs. Capacity is 38,000 gallons.

NORTH AMERICAN *creates the cars that solve your problems*

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HOW U.S. FREIGHT CHAIRMAN G. R. MOIR VIEWS . . .

THE CONTAINER'S ROLE IN INTERMODAL TRANSPORTATION

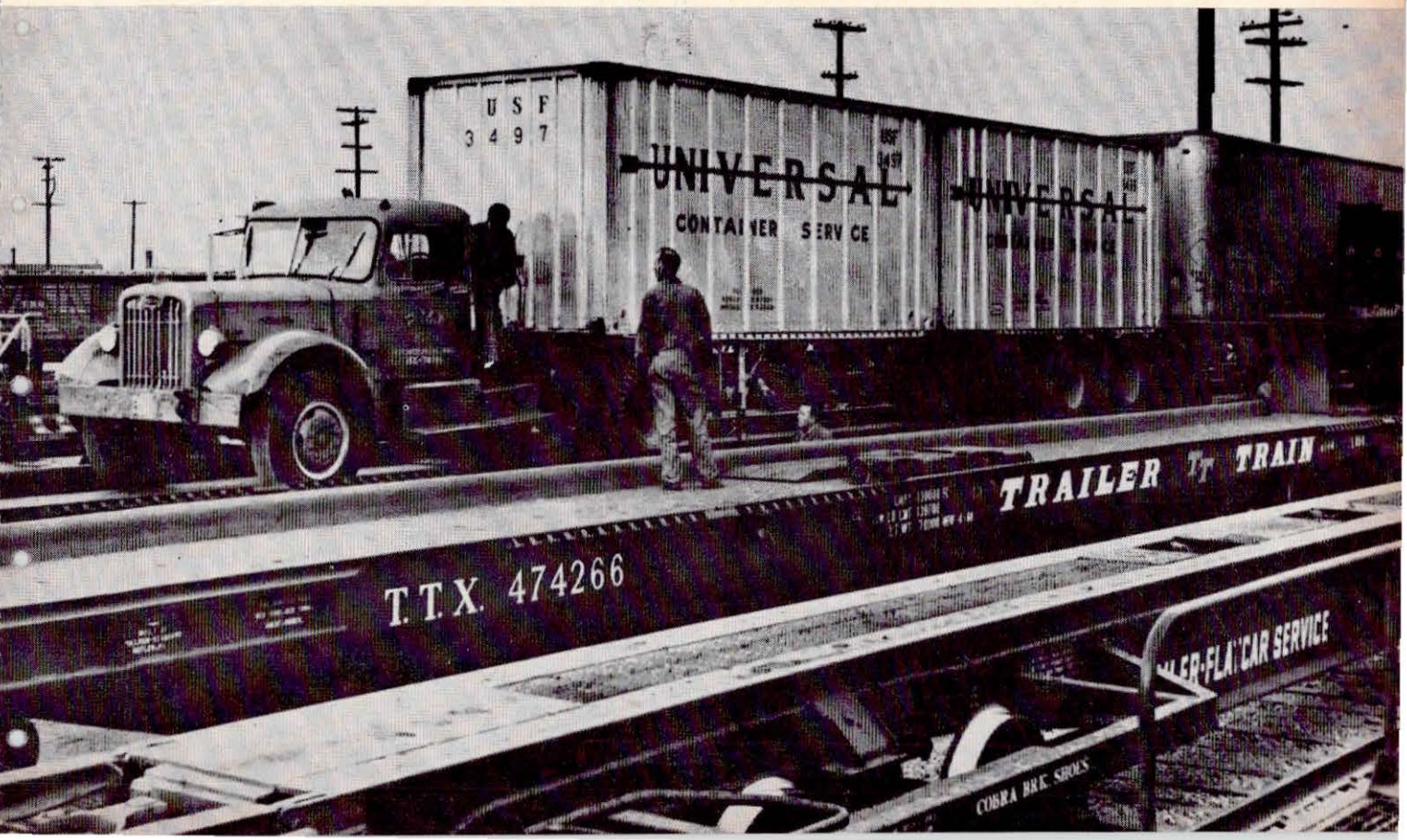
G. Russell Moir, 55, chairman and chief executive officer of the U.S. Freight Co., the world's largest freight forwarder, has been in the transportation business since he was 17. A native of Scotland, he rose through the ranks, serving in various U.S. Freight subsidiaries until he was named to his present position in 1966. He is a director of Trailer Train.

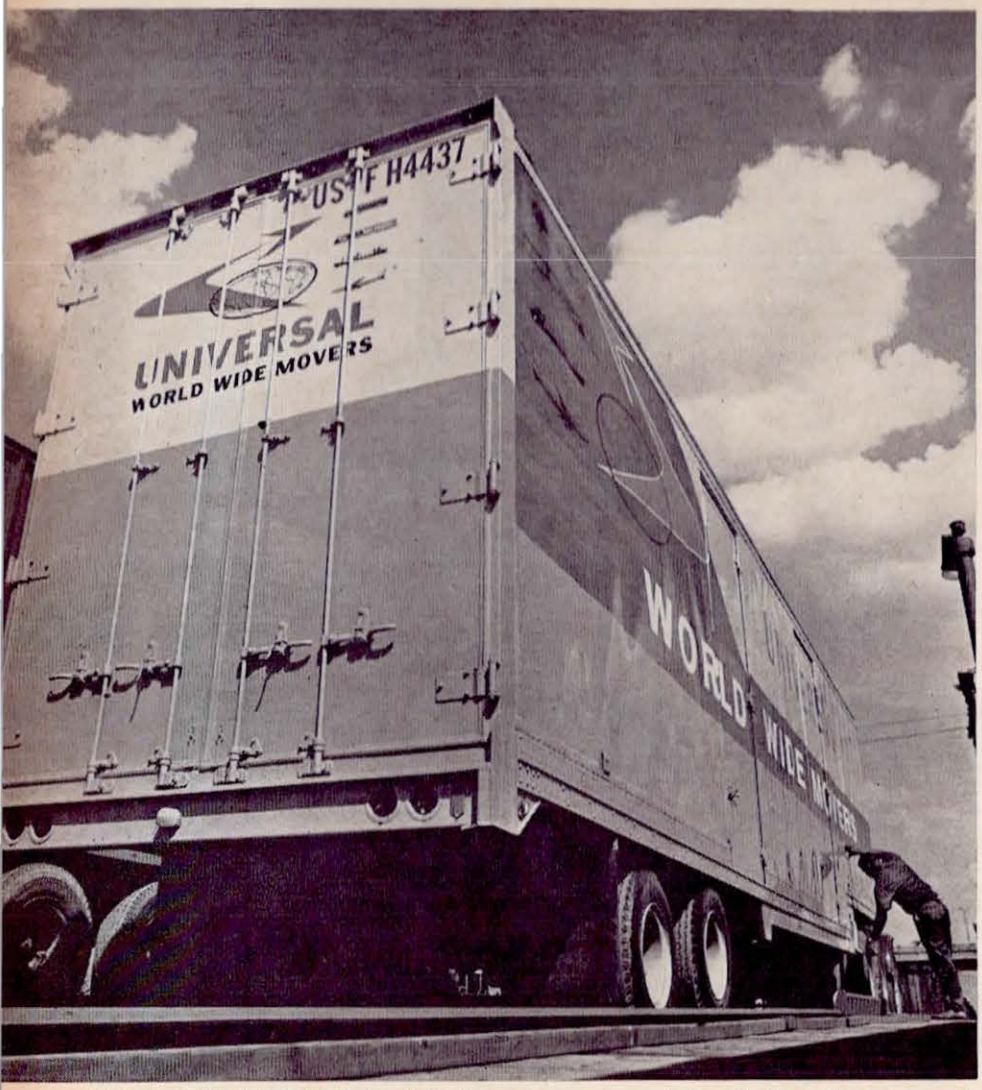
Q. Mr. Moir, just how important is the container going to be in the transportation industry?

A. The container is an extremely valuable tool in the development of an intermodal transportation system. The container performs to greatest advantage in the handling of traffic originating or destined overseas on the one hand and to or from an interior point in the U. S. A. on the other. The container is the instrument whereby shipments can move by any combination of rail, highway, or water transportation with speed and economy.

Q. Then the biggest potential, at least for the time being, lies in overseas traffic?

A. I think it has a tremendous role to





PIGGYBACK SHIPMENTS by U.S. Freight now account for 60% of the company's traffic, and the TOFC figure is still climbing.

"BASICALLY, I SEE PIGGYBACK AS THE INTERMODAL INSTRUMENT IN DOMESTIC TRANSPORT"

play in the handling of import-export tonnage, not only in and out of the United States, but throughout the world wherever intermodal handling comes into play.

Q. What form, then will domestic transportation take?

A. I basically see piggyback as the intermodal instrument in domestic transportation. By intermodal I mean the movement between highway and rail. Conversely, I see the container as being the key form of equipment in export-import traffic where the movements are by both land and water.

Q. How much traffic does U.S. Freight now route by piggyback—and how much of this might be diverted to containers under optimum conditions?

A. About 60% of our domestic freight forwarder tonnage is moving by piggyback today, the remainder by box car. The portion of domestic traffic that might conceivably move by containers at some future date, I don't believe, will be very large.

Q. What advantages does piggyback have in domestic traffic?

A. The piggyback trailer is extremely compatible. Any motor carrier can put his tractor under it and haul it to any place from any place. You don't have the need to conserve space on a flat car —as you would on a ship—so, wheels can easily be accommodated. The container comes into play on the overseas movement because obviously if you use the piggyback trailer in connection with overseas tonnage, it either has to be a demountable type where you can remove the undercarriage—which, in effect gives you a container—or the tonnage would have to be transferred to a container at the port, which would be costly and self-defeating. With the container, a different set of economics comes into play.

Q. What are some of the factors that have delayed the development of containerization, failure to standardize equipment, rates?

A. All of these have played a part. One example is the slow development of ocean freight-all-kinds container rates. The railroads arrived at this a long time ago as a means of using the freight forwarders to gather up the very large amount of less-than-carload tonnage that's involved and tender it to them in carload or piggyback trailer loads. I think the steamship lines will have to move faster in developing these F.A.K. container rates—otherwise it's going to retard the development of the use of containers for export-import tonnage.

Q. Is anything being done in this direction?

A. Yes, a number of carriers have published such rates already. Matson Lines started out with a freight-all-kinds rate, and it's one of the reasons that they have been extremely successful in their operations to and from the Hawaiian Islands.

Q. Your own subsidiary, Waterman Steamship Lines, has such a rate?

A. Yes, and primarily we are interested in having more steamship lines follow suit so that it will create more areas, more routes between which the freight forwarder can effectively operate in assembling the small shipments, place them in the containers, and turn them over to the steamship lines.

Q. What is the railroads' stake in containerization?

A. I think that if they set themselves up to efficiently handle containers, they will be in a most advantageous position to compete against the motor carriers for the handling of export-import cargo.

Q. In intermodal container movements, principally utilizing the airlines, do the railroads stand a chance of competing with truckers in hauls to and from airports?

A. I don't think so, because generally speaking, most of this traffic will be short haul—within a radius of 100 miles or so. The railroad doesn't have the flexibility of service to perform that kind of service, neither the flexibility of service or cost. That's where the motor carrier belongs—in short-haul transportation—up to a couple of hundred miles. He has the flexibility to move as soon as he has the cargo. The truck doesn't have to wait for a train that might be dispatched ten hours later. The motor carriers' most effective role will be to assemble and distribute in and out of the airport and to and from the rail terminal.

Q. How does U.S. Freight view the application of three railroads for the right to operate air-freight forwarders?

A. Since we are not actually in the domestic air cargo business right now, it may give us license to talk a little differently than if we were. I believe that in the long run it's in the best interest of the airlines to use any supporting services that will help them develop air cargo to the greatest degree possible and as rapidly as possible. You'll notice that the railroads that have made application don't plan to use rail service per se in connection with the air freight forwarding. They would use their motor carrier subsidiaries for pickup and delivery and their sales organization to sell it.

Q. There has been talk of using the railroads as land bridges for traffic moving between the Orient and Europe across the U. S. What would the forwarder's role be in such an operation?

A. Here again the railroad and the forwarder combined can furnish the connecting surface link, because the container lends itself better to flat-car handling than it does to highway hauling. The forwarder would be involved in gathering up the small shipments abroad, either in Europe or the Orient, putting them into containers to move in his control all the way, using his normal service, say from New York to Los Angeles, San Francisco or Seattle, and then on from there. The idea is to try to have the most effective service with a common control, a common responsibility all the way. This would lead to a through bill of lading, through rate, through management control—and not as it is now with the ball being tossed from one carrier to another.

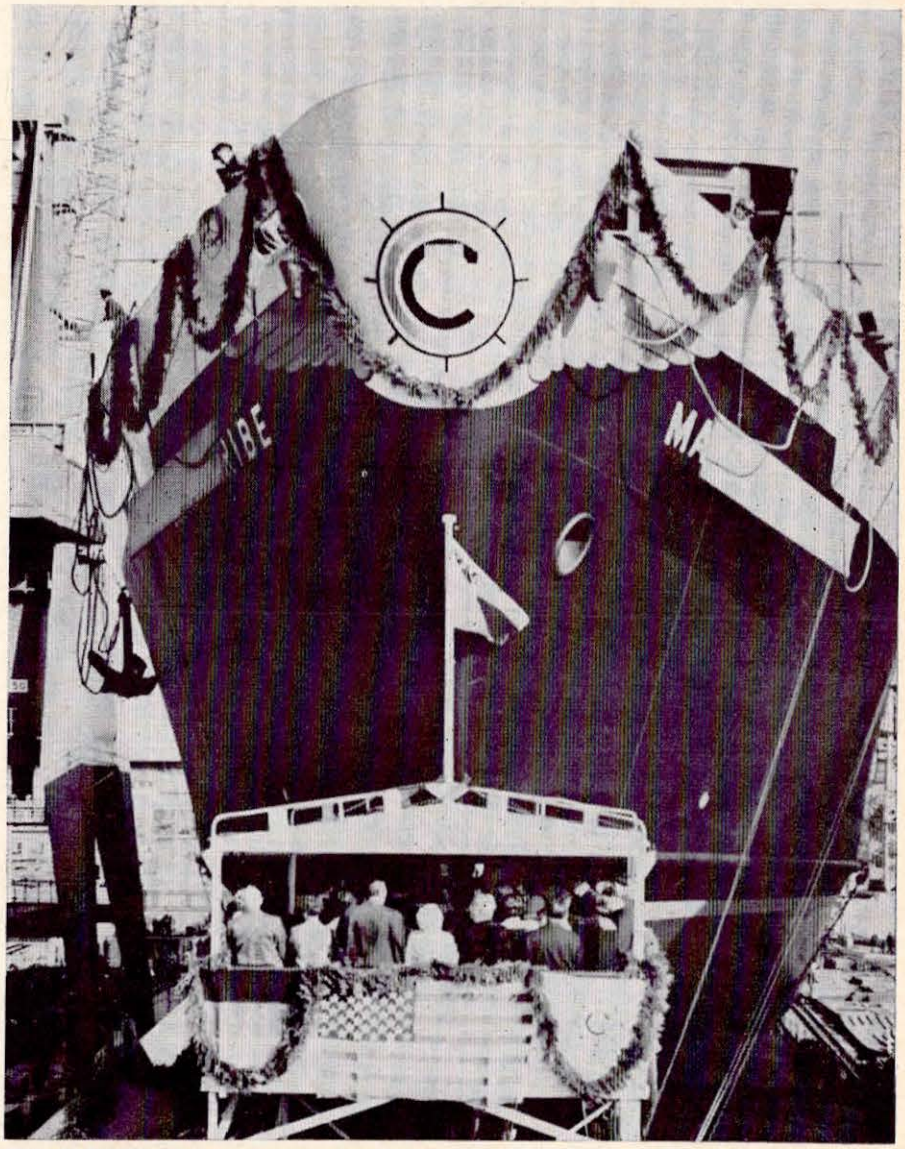
Q. Is U. S. Freight handling much container traffic now out of the Orient?

A. We handle a lot of tonnage out of the Orient that goes into our domestic freight forwarder services for movement throughout the United States, but not much of it is moving in through containers all the way. Part of the reason has been the slowness of the steamship lines operating across the Pacific to adopt freight-all-kinds rates, because most of them don't yet have container ships in operation. At present they're handling containers on board like conventional boxes. It's costly and they're not really set up to go. They lack the hardware and the rate structure.

Q. Will carriers not going into containerization get squeezed out of any of their future business?

A. I have to presume that if they don't go into containerization, it's because their decision is to concentrate their operations in the area where the container is not important—bulk cargo or serving smaller ports. The nature of container

"YOU'RE GOING TO SEE MORE 40-FT CONTAINERS"



THE FLEET'S IN—or about to be—as the latest addition to Coordinated Caribbean Transport, Inc., the roll-on-roll-off COFC/TOFC "Mar Caribe" is launched. The new 3,000-ton ship went into service last month for the U.S. Freight subsidiary.

"VIETNAM HAS SPURRED CONTAINERIZATION"

operations being what they are will dictate their concentration in the big port areas.

Q. Do you think U. S. railroads will get any type of container pool operation similar to that in Europe?

A. I think Trailer Train will increasingly furnish cars that will be compatible for the handling of containers on any of the railroads. And I think that the steamship lines and others will own more containers rather than the railroads. The railroad will come in with the flat car and the steamship line will come in with the container. The container is basically part of the vessel, so I don't see the railroads, within the next several years, becoming big owners of containers.

Q. What can be done to alleviate the empty backhaul problem?

A. I think the freight forwarder performs and will perform a very vital role in this respect. For instance: a steamship line in New York has empty containers and a shipper in Chicago, St. Louis or Kansas City has a need for them. The forwarder can load those containers with his own domestic freight, move them to the inland city where they can be used for loading the export tonnage, and then move the freight back in his service to whatever port they are going to. This, I think, is an important role that the freight forwarder can and must play in developing economical use of containers.

Q. Does U. S. Freight plan to get into any type of container leasing operation?

A. It could be, We're giving it serious study.

Q. Do you foresee any struggle developing between railroads and steamship lines over containerization?

A. No, I see them as partners—very definitely. I think that because of the container they will actually become more dependent upon each other. As far as export-import traffic is concerned, I believe they will work in very close harmony.

Q. Do you think any railroads will buy steamship lines, or vice versa?

A. I don't think it would be to the railroads' advantage, because they basically desire to participate in the domestic portion—the land portion of the land-ocean movements. It is important that the railroads have close ties with all the ocean carriers, and not one or two.

Q. Are the railroads preparing for containerization?

A. They're all very aware of the growing role containerization is going to play, and that less and less tonnage will be moving in their box cars to ports for transfer to steamships, and that more will be moving via container. For example, Trailer Train has run tests on flat cars that have been designed to accommodate both highway trailers or containers. So they're getting ready.

Q. Will railroad mergers be an impetus to the development of containerization?

A. Yes, I think that whether it's piggyback or containers, the economics improve as the length of the haul grows longer and there is a greater concentration of tonnage. Mergers, of course, would encourage both of these circumstances.

Q. How about container hardware? Aren't containers built for the convenience of the carrier rather than the shipper or forwarder?

A. I think that if a standardized box promotes the most rapid and efficient development of the use of containers in the export-import trade, then this is beneficial to everyone concerned—the carrier, the shipper and the forwarder.

Q. Will the standard container, in the end, be the 40-footer?

A. Yes, I think you're going to see more and more 40-foot containers in use. Unfortunately, there are many places abroad that you just can't go with a 40-foot container, and/or there isn't the volume of tonnage to permit you to load door-to-door a 40-footer. But certainly the faster we come to using 40-foot containers, the more it will be to our advantage, because it makes for better utilization of equipment and lower cost of handling.

Q. Will roll-on-roll-off ships or wheeled containers be the answer to the handling problem involved in COFC?

A. Roll-on-roll-off ships, of course, would be desirable to the motor carrier. But our feeling is that when the length of movement of a vessel goes beyond a certain distance, it becomes uneconomical to use a trailer with wheels because of the amount of space it requires vis-a-vis boxes on top of each other. You can't stack trailers and when we get to those big container vessels—carrying 1200-1400 containers—you can imagine what you'd be up against with trailers. On short hauls, trailers work out well, but the economics change as the voyage gets longer.

Q. Has the Vietnam war affected the development of containerization?

A. If anything, it has given it stimulus, because the military is moving a considerable amount of tonnage into the Vietnam area in containerships and is deliberately using containers in order to minimize cargo-handling problems.

Q. How will containerization progress in this country?

A. I think the future will see the creation of systems whereby certain units of land and water transportation, either through common ownership or cooperative ventures, will work together. For example, U. S. Freight has 250 terminals throughout the United States, any and all of which can function as inland terminal stations. They can stuff containers for the outbound movement and send them to the proper port, and they can take loaded containers on the inbound movement, unload them and distribute the freight. Only a limited number of containers move from shipper's door to consignee's door. In our domestic freight forwarder service, the average weight of shipment is less than 500 pounds, and 75% of the shipments is less than 300 pounds. So there has to be a great incidental pickup and delivery, loading and unloading of shipments into and out of containers.

Q. In U. S. Freight's opinion, how will freight be moving 25 years from now?

A. I think it will be a continuation of the trend that has developed over the last few years—more traffic moving by piggyback, and by containers.

Q. Can you project any percentage breakdown?

A. No. Look at our own situation. In less than ten years—starting from nothing—we have converted about 60% of our domestic freight forwarder tonnage from box car to piggyback. This involves about 300 million pounds a month. And our container business is growing. If anyone had asked us ten years ago what our piggyback traffic might be today, we might have prophesied as much as 50%. But we've already passed 60%. Containerization, of course, is much newer in development, but as time goes on it certainly has to capture a lot of the cargo, particularly manufactured goods—the type of thing that can be handled more efficiently in containers. ■

CONTAINERIZATION

Ports hope to stimulate more inland traffic

While containerization is riding high —on the high seas that is—it is making considerably slower progress in developing on the North American shore.

But the men responsible for planning and building marine terminal operations on both U.S. coasts are busy getting ready for what they believe will be a tidal wave of business that will involve both international and domestic container traffic.

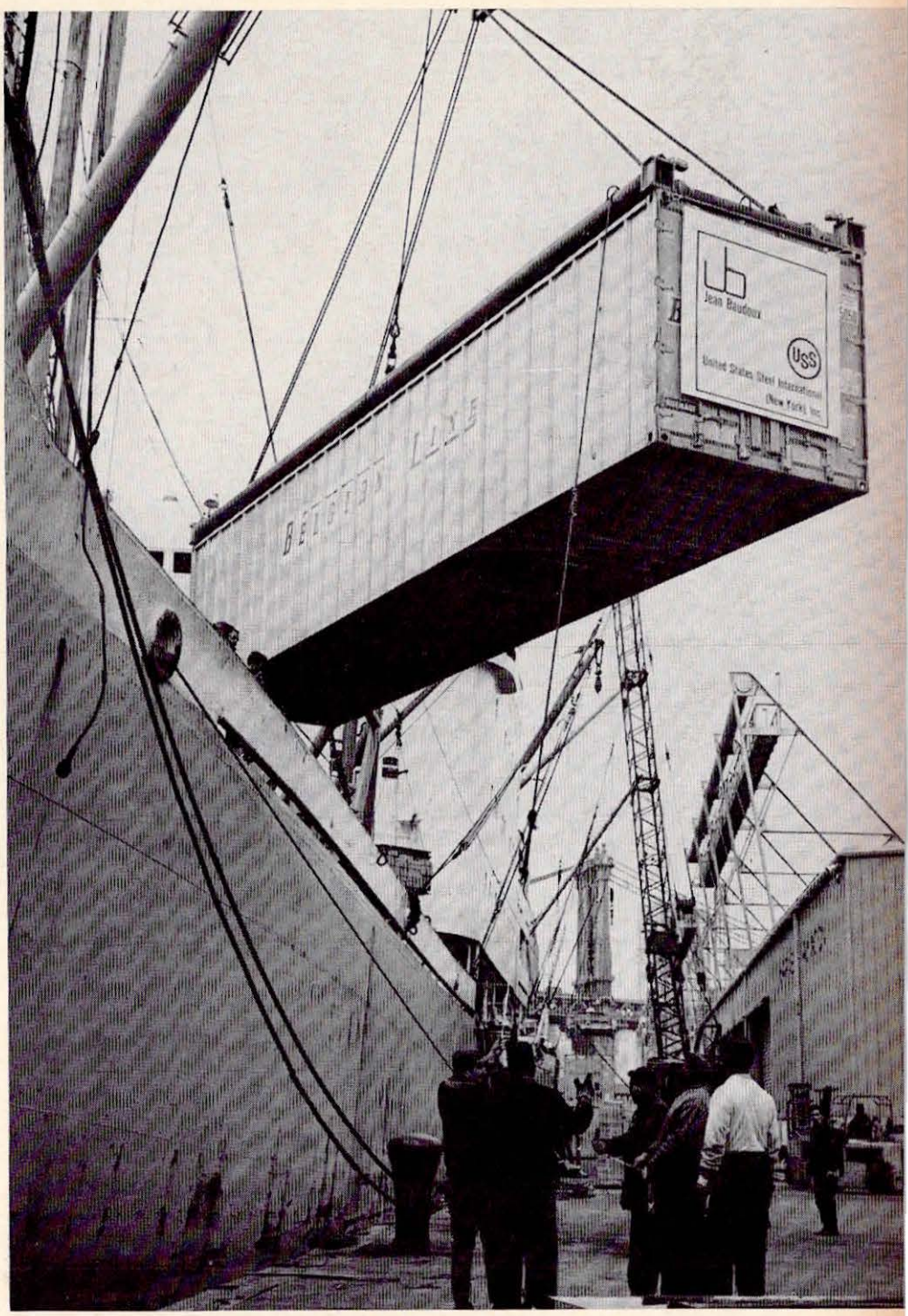
Estimates are that about 70,000 van-size containers are owned by domestic shipping companies today. By 1975, world-wide employment of containers (in 20-foot equivalent sizes) is expected to be in the neighborhood of 400-500,000 units.

In the East, New York, Baltimore and Hampton Roads all have projects under way that will provide expanded facilities for containers. To date, the New York Port Authority has spent more than $72 million to equip for containerization a new marine terminal at Port Elizabeth on Newark Bay.

On the West coast, port authority people excited by the land-bridge idea of moving freight from the Orient, across the continental U.S. and out to Europe from Atlantic ports, already are expanding or have plans to enlarge container operations at Seattle, Portland, San Francisco, Los Angeles and San Diego.

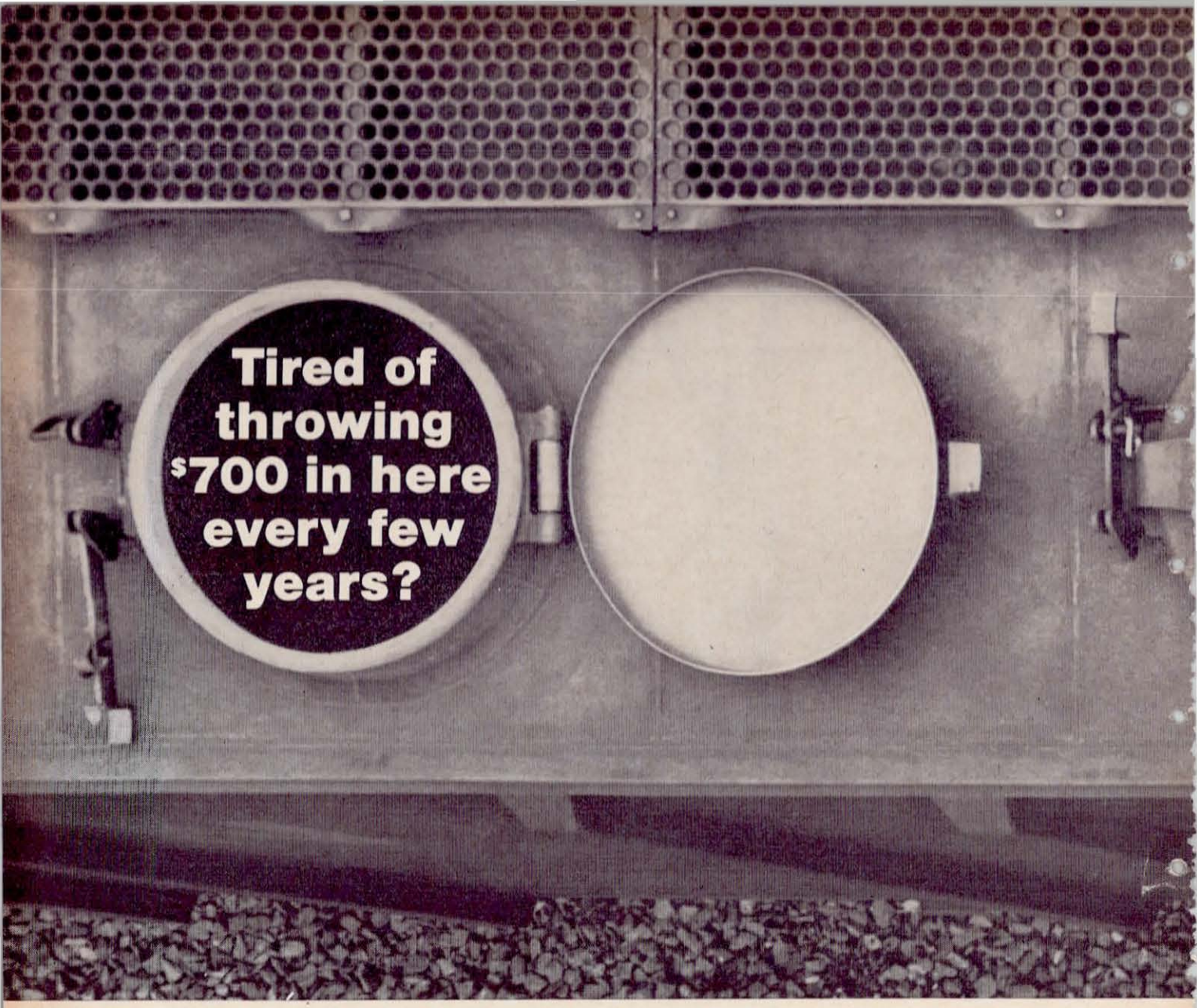
• **The long-range effect.** Container men believe the growth of marine containerization will stimulate a growing market for containers in domestic commerce. The reasoning: Much international cargo moving between inland points and the coasts is now moving by rail and truck in conventional vehicles. With marine containerization, they say, it will move in containers—and move much farther.

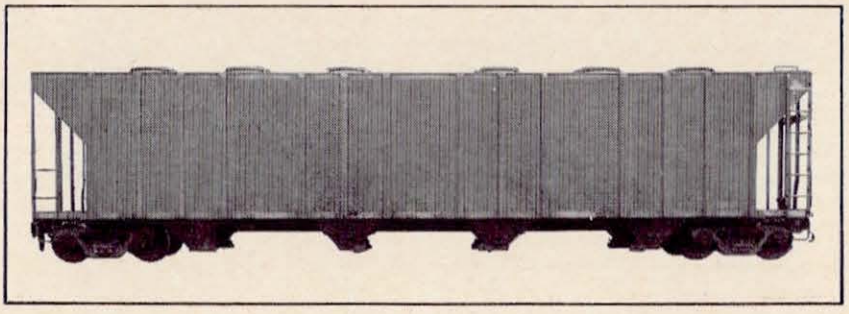
But all is not clear sailing—or clear rolling when it comes to fast development of container traffic on land. The railroads have been slow to accept containerization (some 16 major Class I roads now use them) for a number of reasons. Many railroads, and truckers, too, are unhappy about the economic characteristics of the standard container sizes, particularly the 20 footers. They're also concerned about the costly backhaul of empty containers. Reports are that the Eastern roads might raise the export rate for containers to balance the losses from empty backhauls.



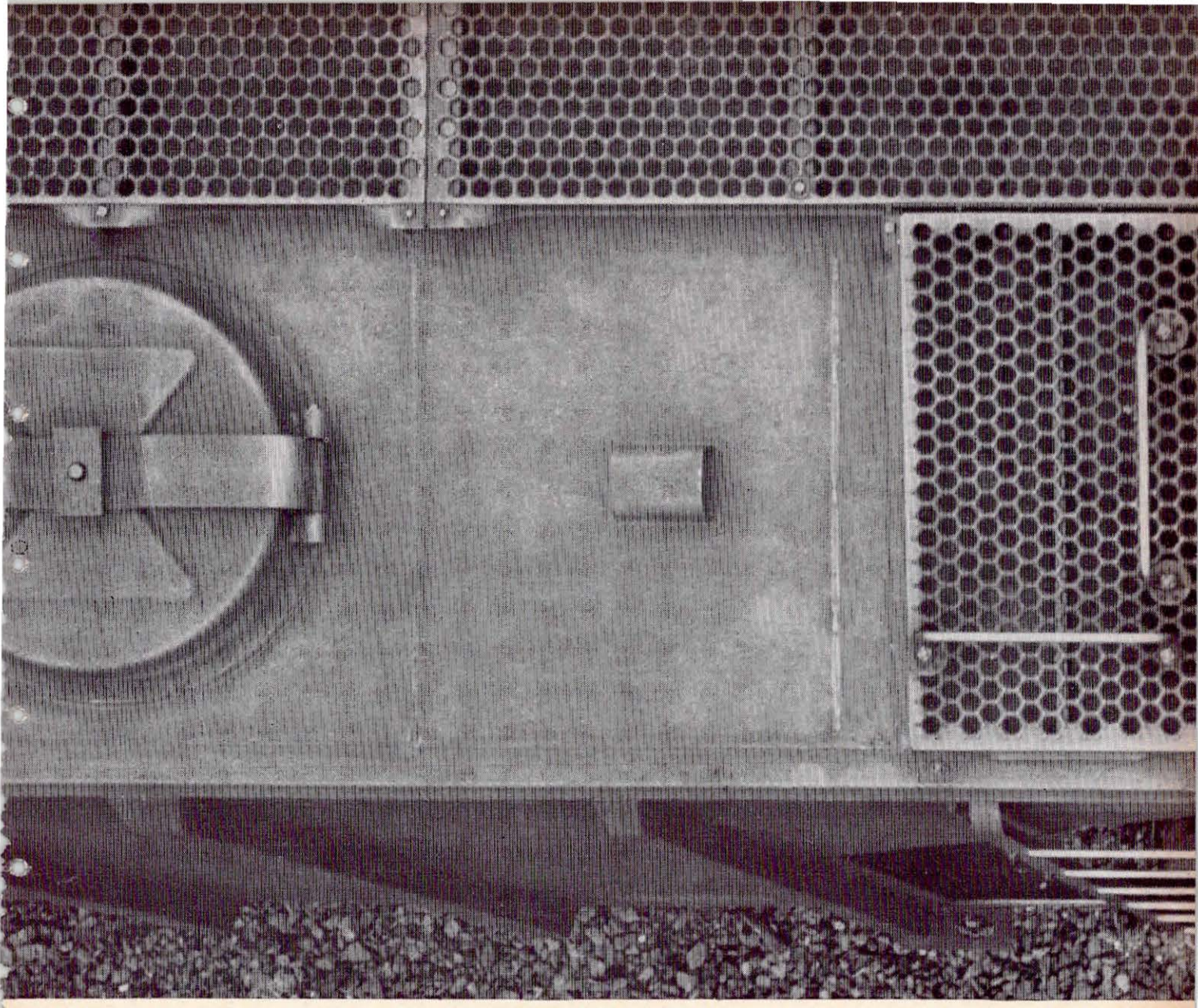
A TOWN IS SHIPPED OVERSEAS in 40-foot containers. The 192 apartment units went to a SHAPE military community near Brussels.

• **On the up side.** But the type of positive happening that proponents of containerization like to point to as a hopeful sign of the times occurred late last month. It was the inauguration, by the Santa Fe, of a high-speed TOFC/





Investigate aluminum-body covered hopper cars. They never need lining.



Why throw good money away, gritting your teeth every time a steel covered hopper car needs a plastic liner? It can happen two or three times over the car's service life—at $700 to $800 a crack.

A covered hopper car with a body of Reynolds Aluminum, on the other hand, needs no lining. It never rusts. Surfaces are smooth, gleaming, naturally resistant to corrosion. Just as it protects food products and other sensitive cargo from contamination, aluminum shrugs off the effects of the most corrosive ladings. This *no lining required* feature more than offsets the higher initial cost of an aluminum-body covered hopper, and generates big savings for you over each car's lifetime.

Aluminum surfaces are easily cleaned. Interiors may be swept down and hosed out quickly, easily —left to drain dry without fear of rusting. Not so with a steel hopper's interior. It must be re-lined or sandblasted to clean out built-up residue. (Just think about the cumulative effect of 3 or 4 sandblastings on slope sheets.)

Another factor: lost utilization, expenses incurred and revenues lost by down-time. It starts with the cost of moving steel hoppers to and from your shop. Then $700—$800 per car for relining. And, most vitally, missed payloads while cars are out of service. Those lost revenues can never be regained. (The cycle repeats itself for lining patch-up jobs . . . every two years on one major road.)

Aluminum's low-maintenance needs are far from your only plus-benefit. Lower deadweight is another. An aluminum-body covered hopper has substantially larger capacity than a steel car the same size. It can haul 7-8 tons more payload on every run.

Covered hoppers of Reynolds Aluminum bring you higher rates for off-line service, too. What's more, their light weight cuts round-trip ton mileage, reducing your operating costs. Finally, each delivers over $2,000 more in eventual scrap-value than a comparable steel car.

It's hardly surprising, therefore, that more and more railroads and shippers specify aluminum bodies for their covered hoppers all the time. Learn the full story. The men at Reynolds are the leading supplier of aluminum and aluminum know-how for railroad applications. Contact your local Reynolds office or write *Reynolds Metals Company, P.O. Box 2346-TM, Richmond, Va. 23218.*

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REYNOLDS
where new ideas take shape in
ALUMINUM

COFC freight that sprints the 2,220 miles between Chicago and Los Angeles on a 40-hour schedule (RA, Jan. 29, p. 22). The "Super C" is the offshoot of a study of container and piggyback services conducted by Santa Fe.

Explained ATSF's John A. Grygiel, manager-market research: "We are using COFC and TOFC service because the available equipment is of a quality which will permit consistent high-speed movement. Only some of our carload equipment could be used at this consistent speed, the rest would cause severe operating and mechanical problems."

Santa Fe believes that "Super C" type service will be attractive to shippers if they can see their way clear to concentrating their distribution from one of several points in the East or Midwest as opposed to warehouses in California, for example.

"That kind of change takes place slowly and over a period of time," adds Grygiel, "but we hope that this kind of service can eliminate new warehousing and can contain expansion of existing warehousing in California and other Western states."

Another hopeful sign for container people came with the news that Trailer Train—after months of testing various prototype cars—had approved the design essentials for an all-purpose TOFC/COFC car. The general specifications for the approved car are designed to give TTX and its members the maximum in flexibility with a minimum of hardware complications.

Meanwhile, earlier this month in Chicago, REA Express took the plunge into a new concept in containerization, setting up Interpool, Inc., a company specializing in the leasing of containers and supporting equipment.

"Ownership by container users will become a thing of the past," said REA President William J. Taylor. He said Interpool will provide the carriers "even greater flexibility to serve the short- and long-term needs of their customers."

The company serves rail, truck and steamship lines with containers and side-loading equipment supplied by Steadman Industries, Ltd. A pool of 20-foot and 40-foot containers has been established in Chicago. Initially, service will be between Chicago and New Orleans.

Interpool arranges all terminal services, including the transfer of containers between rail flat cars and trailer chassis, permitting the railroad to carry four 20-foot containers on an 85-foot flat car. Side loaders for transferring the containers between rail cars and highway chassis have been stationed in Illinois Central yards in Chicago, Peoria and New Orleans.

● **Activity in the North.** Northern Pacific opened a commercial office in Japan last year to stimulate traffic from the Orient to NP lines. So the next step was to test fast-freight trains for container and trailer loads exclusively, which it has done. Its so-called "Tokyo Express" ran the 1,875 miles between Seattle and NP's Northtown yards in Minneapolis in 36.5 hours. The test train then moved on from Minneapolis to Chicago for third-morning arrival.

"Tokyo Express' moved on the same schedule as NP's crack Vista-Dome North Coast Limited, departing an hour and a half after the passenger train left Seattle—and with fewer stops en route beat the streamliner to Minneapolis by more than two hours. If import-export traffic steps up enough, NP will set up the fast freight on a regular schedule.

● **Veterans at the game.** Southern, one of the pioneers in the containerization field, (beginning in 1960 with 310 containers built to specification) has been doing a brisk business with its COFC operations. In 1961 the road handled 7,000 trailers and containers; in 1966, 110,000. The growth rate through 1970 is expected to average 20% per year.

Southern figures it owns about 20% of all containers now in use on U.S. railroads. It believes that when the all-purpose TOFC/COFC car is made available railroads should be able to enter the field with less investment than was formerly required.

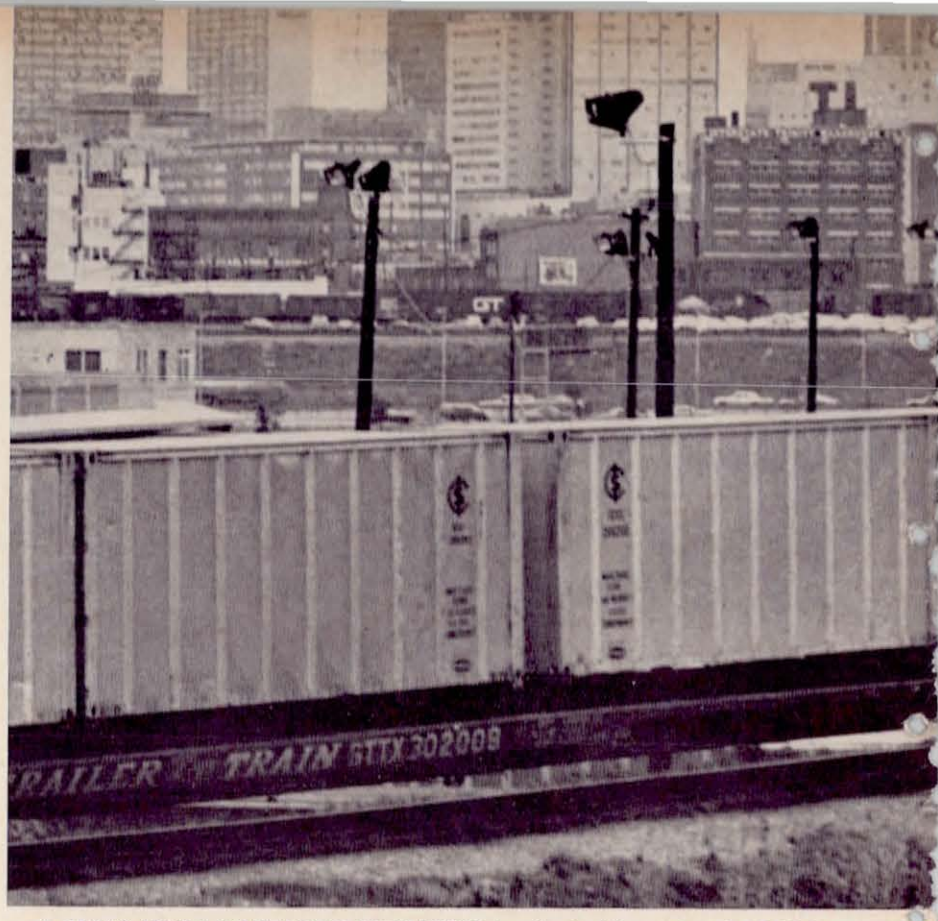
"In our look over the horizon in 1960, the concept of containerization was barely visible from 30,000 feet," says W. W. Simpson, Jr., director of Southern's technological development. "This new horizon for the railroads can now be seen with our feet firmly planted on the ground."

Another veteran in container operations, Penn Central, expects its Flexi-Van service to show a 30% hike this year. The road is also engaged (see photo at right) in moving bulk mail in special containers.

● **Some observers' observations.** The Harvard Business School's Paul W. Cherington, a staunch proponent of containerization, believes maritime, rail and trucking companies have only one way to go when it comes to containerization: get into it, and fast.

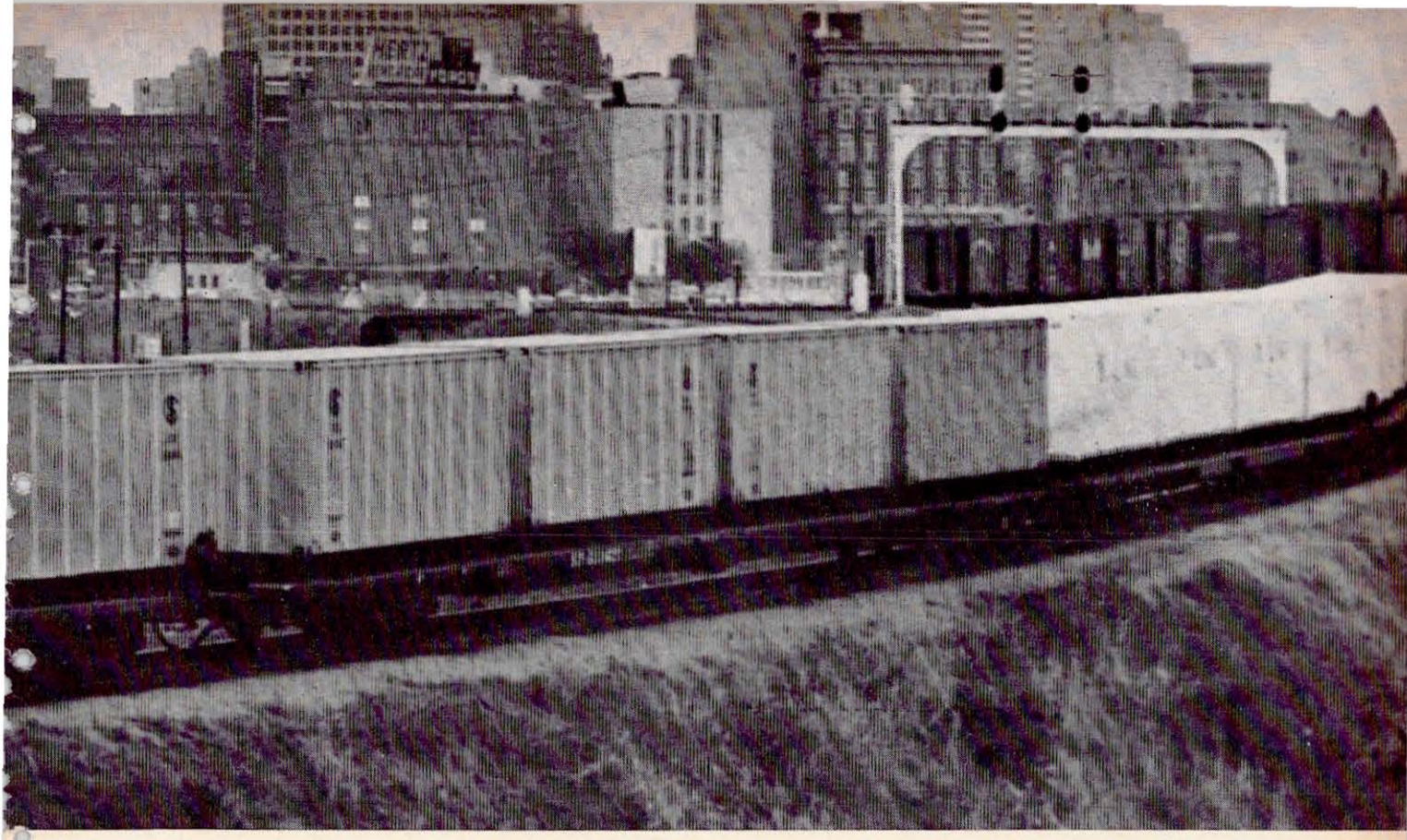
"There is really no choice for transportation companies whether or not to get involved in containerization," he maintains. "It's analagous to a father who is asked to spend $5,000 on hospitalization for a sick child. If he spends the $5,000 his child may wind up no better off than he started out—but if he doesn't agree to spend it, he may not have a child."

Shippers, rather than carriers, says



A TEXAS-JAPAN CONTAINER MOVEMENT involved shipments of 13,000 automobil

NEW FAST-FREIGHT TRAIN



air-conditioners by Texas & Pacific and Southern Pacific. The huge order was sent by the John E. Mitchell Co. of Dallas.

SERVICES WILL PUSH TOFC/COFC TRAFFIC

Cherington, will call the shots as to what types and sizes of containers will be used in the future.

"My guess is that in three to four years we'll have a family of containers of varying sizes, and shippers will take their pick. This might send shudders down the backs of some people, but that's the way it's likely to be—if a shipper wants a given size, that size probably will be accepted." He said gradual changes tailored to the specific and individual demands of shippers will supersede considerations of local or state governmental size and weight regulations "which were the determining factors when the whole thing started."

He believes it likely that carriers will decide to charge special fees on odd-size packages to offset extra costs, but that ultimately shippers' desires will prevail in the competitive market place.

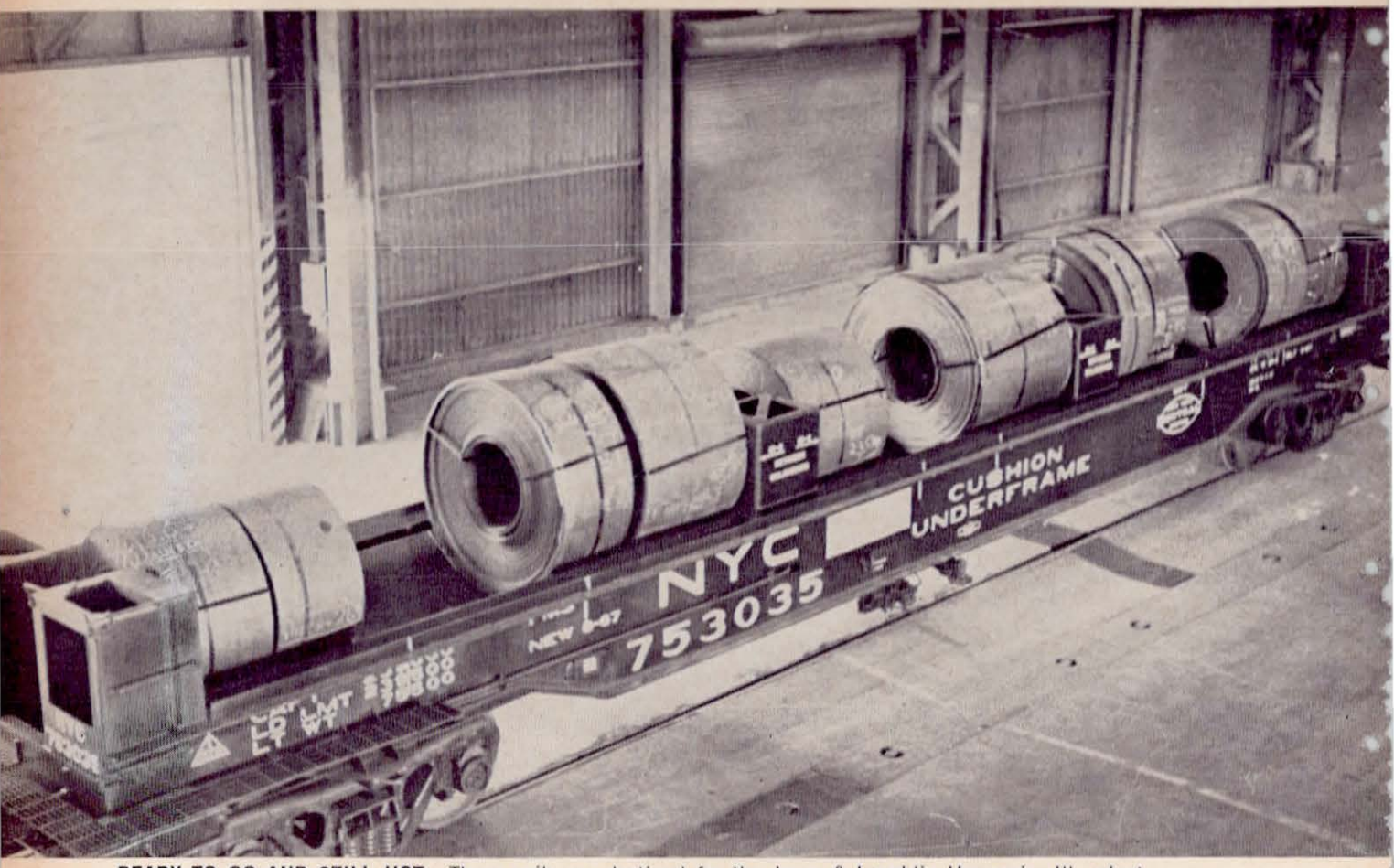
● **Reasons for feet dragging.** ICC Commissioner Rupert L. Murphy believes "mutual distrust among carriers" to be the real barriers to intermodal cooperation. Government barriers don't exist, he said.

He said some progress has been made, pointing to the significant growth of water-rail movements in Alaskan and Hawaiian trade.

He praised freight forwarders as effective instruments for coordination, providing "through the use of containerization and TOFC services . . . a successful highway-rail-water-highway service in domestic and foreign commerce with a minimum of handling of individual shipments and with attendant simplification of through billing."

MAIL ON THE RAILS of the Penn Central moving in containers is pleasing the Post Office Department with fast, low-cost service.

But despite these advances, said Murphy, the voluntary approach to intermodal cooperation has not produced the results which our commerce requires, and, he warned, "the only answer may be specific statutes which would compel intermodal arrangements." ■



READY TO GO AND STILL HOT—These coils are destined for the Jones & Laughlin Hennepin, Ill., plant.

Cars designed for loading with hot coils release valuable space in steel mills

Penn Central has been moving semi-finished steel between the plants of two producers in 205 special high-capacity cars which were built by Greenville. The cars are said to be the first of their kind. Steel coils of different sizes can be moved without bracing between them.

"Get 'em while they're hot"—the traditional sales pitch of ball-park food vending—well characterizes a major feature of 205 coil-steel cars now operating on the Penn Central. It is hot steel—not hot dogs—which interests the fans of this new equipment.

From two Midwestern steel plants, coils bound for distant finishing facilities can go into the cars just as they come off the cooling conveyors at the rolling mills. It is no longer necessary to tie up valuable floor space in the mills with 800-degree F coils so they can cool to temperatures which would permit them to be handled in cars with floors or coil cradles of wood. Steel cradles and steel bulkheads are used exclusively in the coil cars which New York Central put in service late last year.

● **What customer wants.** There are other features of the cars which NYC marketing, traffic and mechanical departments realized were necessary to secure or hold the semi-finished steel traffic.

High capacity was something which the mills wanted. They got it with the husky car structure and the 125-ton trucks. Coil damage was overcome with cushion underframes. Even the design of the bulkheads was worked out to conform exactly with the loading and unloading practices in steel mills.

Moving high-temperature steel to finishing facilities at another mill is not a new technique on Penn Central. Almost three years ago NYC began unit-train service for hot slabs originating at Bethlehem Steel's Lackawanna plant near Buffalo, N.Y., and destined for the Burns Harbor plant near Gary, Ind. (RA, May 24, 1965, p. 29).

For this service 275 steel-floored gondolas were fitted with special crossmembers and chain tie-downs. The slabs were cooled to about 1,000 degrees F prior to loading and with a through, high-speed run arrived at Burns Har-

bor still warm enough to appreciably shorten the reheating interval. Because Burns Harbor had no steel-making facilities, Central's unit trains became an integral part of the over-all Bethlehem production process.

● **Two more customers.** Jones & Laughlin is the principal user of the new hot-coil cars, with 170 assigned to a pool operating between Cleveland, Ohio, and Hennepin, Ill., about 120 miles southwest of Chicago. Great Lakes Steel, a division of National Steel, uses 35 of the cars for movements between its Ecorse, Mich., plant near Detroit and the mill at Portage, Ind., a near neighbor of Bethlehem's Burns Harbor operation.

Both Hennepin and Portage are new plants incorporating cold-rolling and galvanizing facilities. J&L's hot-rolling mill at Cleveland supplies most of the semi-finished material for Hennepin. Although no attempt is made to deliver the coils hot, the 440-mile route is usually traversed in about 48 hours. Prior to introduction of the new coil cars, the steel was stored several days at Cleveland to permit sufficient cooling for shipment. Storage and inventory problems have been eliminated. The former storage space can now be utilized for production. Because of the semi-finished nature of the lading, it has not been necessary to fit the hot-coil cars with hoods or covers like those used when finished ferrous products are involved.

● **Filling the requirements.** Greenville Steel Car assembled the 205 cars and reports they are "the first of their kind ever built." While technically classified as a flat car, the 75,000-pound coil car basically consists of heavy sills supporting the trough between them. The all-steel trough is designed to accommodate coils ranging in diameter from 36 to 84 inches and with temperatures up to 800 degrees F. Coils are moved successfully without bracing between them.

Four pairs of fixed, steel bulkheads create balanced loading so that coils of differing sizes can be carried in the same load. The bulkheads, along with the cushion underframe, have proved to be all that is needed to prevent damaging the lading by longitudinal movement en route. The 30-inch-wide opening in each bulkhead gives easy access to the "eyes" of the coils for "C" hooks on the overhead cranes used to load and unload the cars.

There are three lading spaces in the trough of each car. In the center there is a 12½-foot section; over each truck is a 16-foot 8-inch space. Each car may be loaded with approximately 120 tons of coils. ■

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TRAFFIC POLL REPORT

Shippers want standard containers

Containerization here to stay, say industrial traffic managers.

1) Why, in your view, has containerization been slow to develop?

A—Rate difficulties	11
B—Failure to standardize equipment	26
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D—Opposition of those who don't want containers to compete with conventional (e.g., box-car) transportation	9

2) Would the proposed 40-, 20 and 10-foot standard containers fit your needs?

Yes	38

3) If you had your choice of shipping your freight in standard piggyback trailers or in wheel-less containers, which would you select?

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Utilization of the container and its growth boils down to a matter of economics, said J.A. Griffin, Swift & Co., Chicago. For instance, he asks, what is the total cost laid down at the customer's door, taking into consideration all factors, including such things as freight, packing costs, claims and handling expense?

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Only part of the story

Containerization is an important part, but only a part, of the transportation spectrum, according to Maurice D. Dyer, manager traffic and transportation department, Little Rock (Arkansas) Chamber of Commerce. "It is not the complete answer to truly intermodal operation that is much needed. . . to obtain the least cost transportation service consistent with need. Flexibility in the available services is important, including the all-purpose box car." Dyer said, in registering his answers to the Poll questionnaire, that he did not think containerization has been slow to develop. "The question [No. 1] indicates impatience."

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with the rail carriers, to better coordinate information as to availability of containers. Containers must be made available in many more locations than currently. And very important, containers must be standardized so they will be compatible for intermodal transportation with the various carriers involved. In that way, a container from one steamship line could be coupled with one from another steamship line to take advantage of the basic economies available in TOFC transportation."

Too many carriers have looked at containerization as a "gimmick" for attracting new business, said W.E. Maley, director of distribution, U.S. Borax and Chemical Corp., Los Angeles, Calif. It should, instead, be regarded "as a more efficient way of performing transportation."

● **The rate problem.** Some shippers cited other reasons for being unsure about the benefits of containerization. For example, here's the remark of G.E. Mayfield, manager of traffic, American Oil Co., Chicago, Illinois:

"We do not feel the carriers have shared the benefits of containerization with the shippers through lower rates."

One reason containerization is so slow to develop is the "usual attitude of the railroads toward anything new," said Paul W. Gosling, regional traffic manager, F. W. Woolworth Co., Minneapolis, Minn. "They're against it!"

● **Biggest block?** Howard Pollen, traffic manager, P. Ballantine & Sons, Newark, N.J., called attention to what he described as the foremost stumbling block in the development of containerization. It is, he said, the increased and continuingly increased "cost of placing and picking up this type of equipment. I'm afraid that if it continues to increase both containers and piggyback will be forced out of the truck-competitive market."

Question No. 1 requires comment, said J.J. Kelly, manager of distribution operations, California and Hawaiian Sugar Refining Corp. "The reason for the slow development is threefold. First is the failure to standardize equipment, which was brought about because a few pioneers started with their own equipment. This is particularly obvious considering the intermodal aspects of the problem. . . Second, there are those who pioneered the use of piggyback and now have a tremendous investment in that operation. Containerization is the 'Johnny come lately' in this picture. Finally, there are those who resist the change from regular box car shipments —i.e., railroads, because of an adverse effect on their financial pictures. It's my thinking that this whole problem will be with us for a long time." ■

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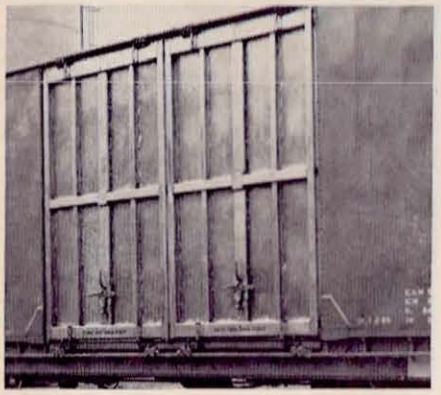


Sliding plug doors (RA-1)

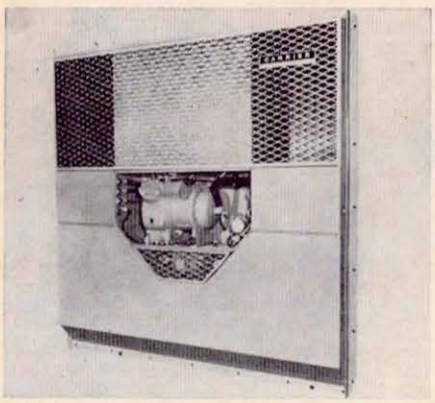
The Landis single-handle, cam-operated plug doors may be of steel or aluminum, plain or insulated, standard or high-cube design. The doors, said to be easily operated by one man, are continuously seam welded, and gaskets give positive sealing under adverse weather conditions. There are four locks in vertical side post and two each in upper and lower tracks. Eight door sets, including a main and auxiliary door, are now in service on one NYC high-cube box car. *CoManCo, Inc.*

Auto loading ramp (RA-2)

The mobile auto loading ramp developed for the Kansas City Southern Transport Company is completely self-propelled. It is powered by a 91-cu-in. V-4 cylinder overhead valve Ford industrial engine and has power steering and full-hydraulic controls. The Acme screw lift elevator, which provides one-man control of ramp height, positions at any level and automatically stops and locks whether power is on or off. A single control regulates ramp height. *Page & Page.*

Container handler (RA-3)

Practically any truck chassis can be equipped with TACK-L-HOIST, an economical device for handling large containers. Basically designed for general all-around use, it will work anywhere a regular dump truck operates. It lifts and carries almost any palletized or stacked load of heavy or light materials. Using the device, one man can remove a load from the ground and ready it for hauling in 30 seconds. No fork lift is necessary at job site or warehouse. *TACK-L-HOIST Corp.*



Car temperature control (RA-4)

With the Frostmaster one-piece door- or wall-mounted temperature control system insulated car temperatures, it is said, are controlled at any desired level from minus 10 to 70 deg F. It can be used to preserve frozen foods and meats at prescribed cold temperatures, or fresh vegetables and fruits at higher temperatures. Cooling capacity is 38,000 Btuh while maintaining 35 deg F in the car when outdoor temperature is 100 deg F. Heating capacity is 17,000 Btuh. A thermostat maintains air temperature within the car at required levels during completely automatic refrigeration and heating operations. Defrosting is automatic also. Access panels in the unit simplify inspection and maintenance. The electric drive unit may be operated from a separate underslung diesel generator while moving, or plugged into power outlets when stopped. The Canadian National is said to have successfully tested the unit in the door of an ice car converted to mechanical refrigeration. A similar unit is now on test on a prototype all-purpose car. *Carrier Corporation.*

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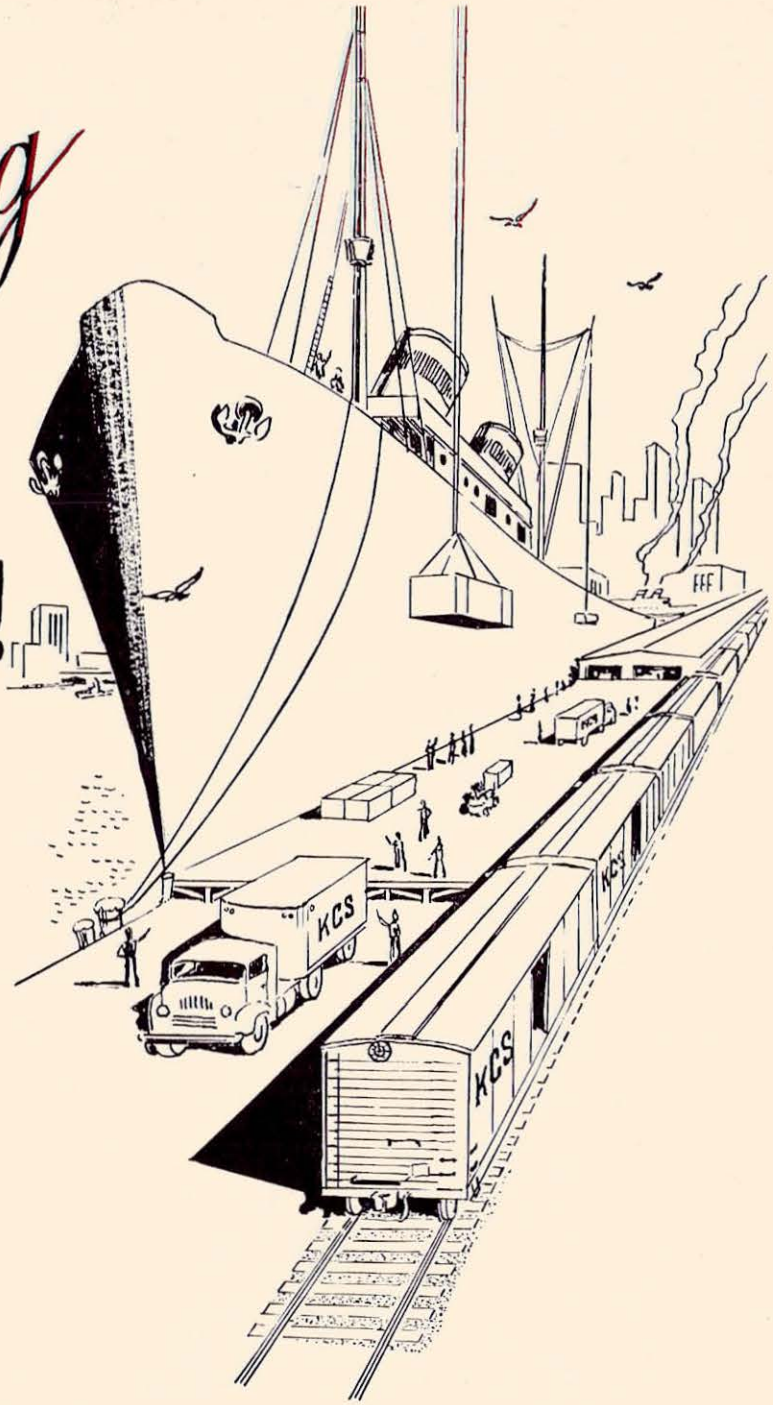

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Computers have beefed up transport quality control

Shippers and railroads may soon be talking the same language when they talk about transportation quality control—because railroads are now getting both the technology and the techniques to make the service measurements which mean most to the customer.

By necessity, railroads have had to measure service quality on a wholesale basis, while the shipper was concerned with a retail measurement. And it's only been with the introduction of third-generation computer equipment and high-speed, high-volume communications systems that individualized service evaluation has become practicable.

• **What control will do.** Now that true quality control is possible, what's it going to mean? Santa Fe Superintendent of Transportation John W. Barriger recently summed it up this way: "Railroad operating officers will be able to measure the performance of their operations in the same terms that shippers use. Shippers have always judged railroad service on the basis of individual car movement. But operating officers measure their road and terminal activities in terms of performance on a schedule for freight trains and by use of certain other indices of operating efficiency for yards. Measurement of service given an individual car, if it's done at all, must be handled on a sampling basis. Thus, while shippers are judging railroad performance on one basis, railroad operating officers are looking at an entirely different set of measurements which only indirectly reflect car movement."

As Barriger points out, there's nothing really new about quality control, as a general term: It's been used for years to measure the operation of passenger trains and of some freight trains. Why, then, has it taken more than 100 years of railroad development "to adopt this simple concept to railroad freight-car movement? The answer requires a look at car-accounting history.

"With freight cars moving between countless origin and destination points over many different routes and through assorted terminals and interchange points, it was a Herculean task to keep up with the movement of cars as they passed key spots. Recordkeeping at a central office was accomplished historically—days or weeks after movement occurred. There was too much detail to use any communications except mail. Records were maintained by hand.

"Quality-control programs for individual cars couldn't be introduced until there was a means for (1) gathering and recording vast quantities of information, (2) storing complex standards for quick access, (3) making rapid calculation for comparison, and (4) quickly furnishing records of results to interested persons.

"Developments over the past 20 years have changed the information environment. Communications have advanced to the point that any movement or change in the status of a freight car can be reported to the information center from a few minutes to at most a few hours after it happens. That great data-storage capacity of the third-generation computers permits recording of dozens or even hundreds of bits of information about the movement of each car. The great memory capacity of these computers permits the building of comprehensive standards into programs. The high operating speed allows running these programs on a time-sharing basis with other important programs."

• **A vital by-product.** In outlining the quality-control situation to members of the Pacific Coast Shippers Advisory Board, Santa Fe's superintendent of transportation emphasized the by-prod-

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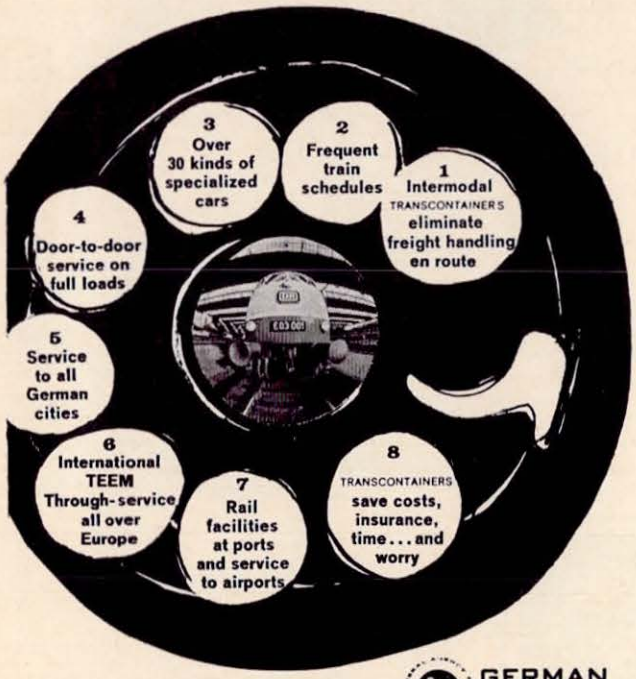
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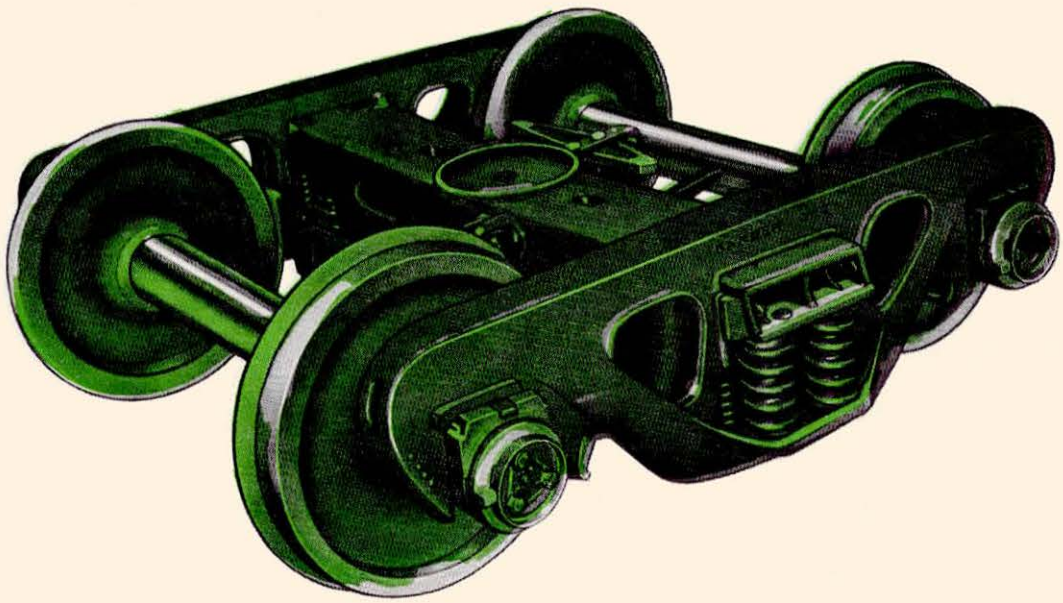

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uct nature of performance data—that is, (1) there's a tremendous amount of detailed information required, but (2) all of it is basic information also required for other intra-company purposes.

It's relatively easy to get a computer print-out measuring the elapsed-time interval between any two recordings, Barriger notes. But that simple computation doesn't mean much unless it's related to a standard—and there's where the problems really begin, because the computer must then be told "what is an acceptable length of time to accomplish an activity, so that actual performance may be compared to standard and results reported."

In Barriger's view, "The more refined and flexible the standard, the better the quality-control program. But setting standards for railroad activities involves some very difficult decisions. Freight-train schedules can be adopted almost without alteration. Yard-performance standards, when available, can be used. Cut-off times for outbound trains, cut-off times for connections with other carriers' trains, or arbitrary limits on bad-order repair time can all be used. However, there are many activities for which standards are not available. For example, how long should it take to move cars from an inbound train to each industry? . . . to each connecting line? . . . to the repair track?"

• **How decisions are made.** Most railroads working in the quality-control area, he points out, "use existing schedules and cut-off times, supplemented by arbitrarily-set standards worked out by traffic and operating officers who decide what is a reasonable upper-limit of elapsed time to move a car from one point to another. Some railroads have developed standards on the basis of experience by measuring actual performance over an extended period and adjusting the standard to include all elapsed times in the median range. At least one railroad is experimenting with a mathematical technique. But whatever the method used, standard-setting is a difficult process, for it requires committing to record all of the objectives of railroad service. It requires setting the upper limit of what constitutes acceptable service. It requires railroad men to be very specific about just how good their service should be."

Barriger concedes that such evaluation and control systems are basically score-keeping programs. But, he adds, quality control "can prevent some delays by alerting supervision to potential delays about to occur. And the important change is that operating officers will have, for the first time in railroad history, a continuous 100% measure of the quality of service being produced by their division, district or terminal." ■

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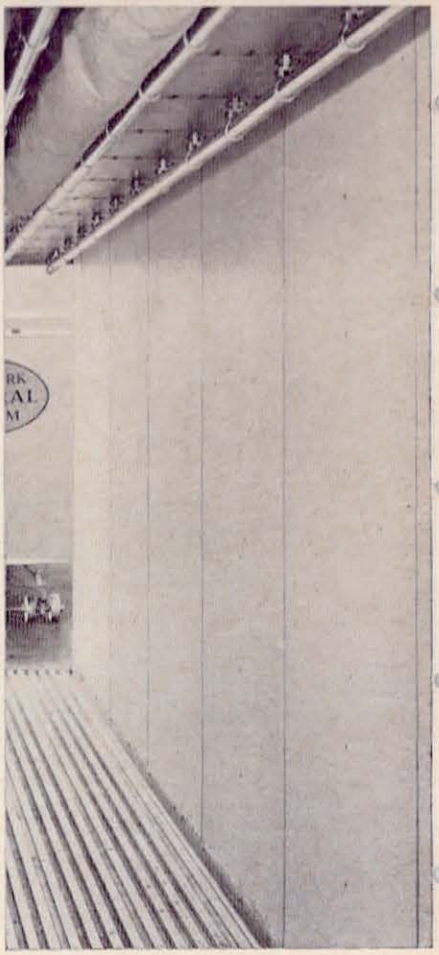

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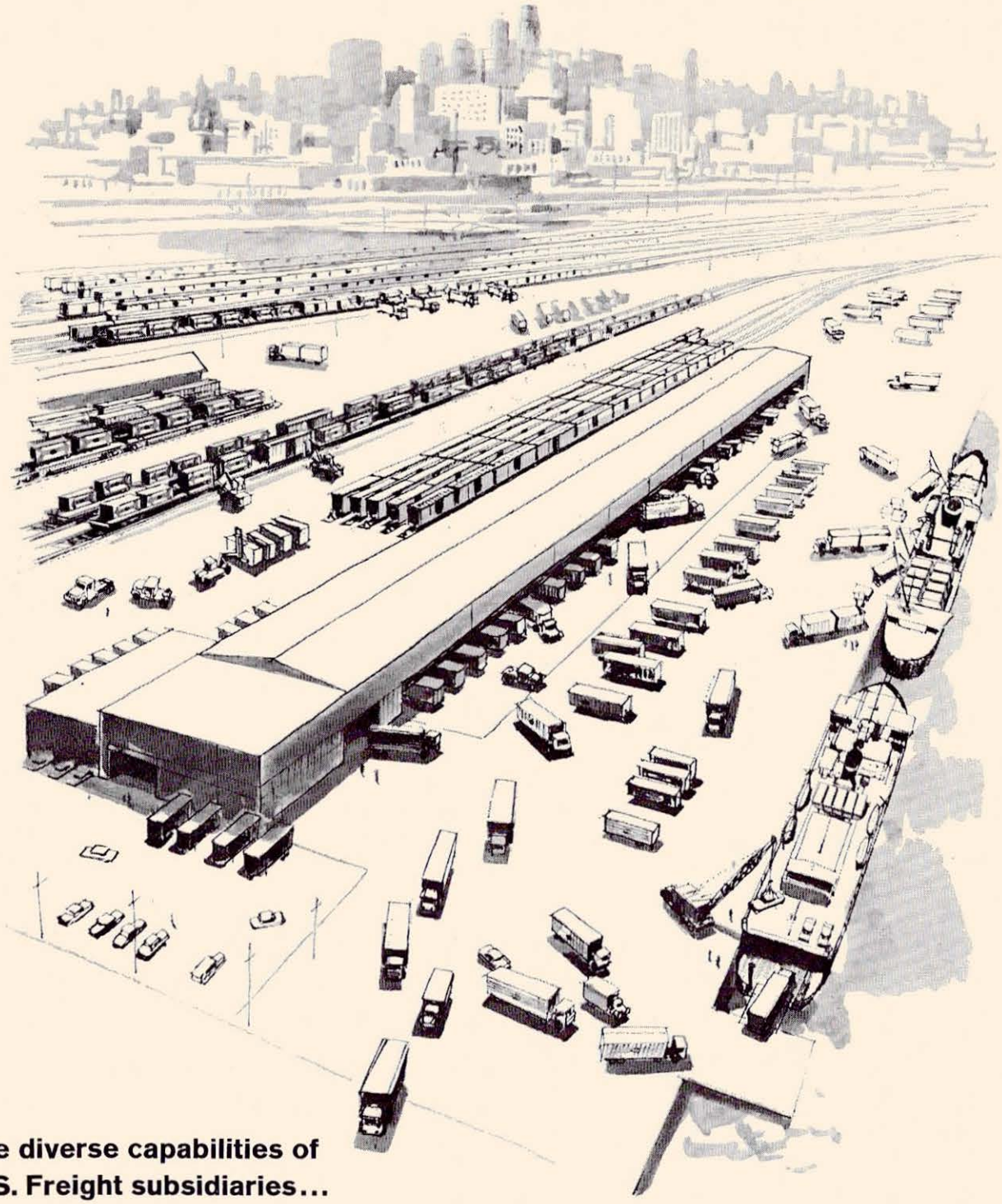

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PEOPLE IN THE NEWS

BALTIMORE & OHIO.—**Robert B. Grayson,** assistant director of sales, coal traffic department, Baltimore, promoted to director of sales.

BURLINGTON.—**William T. Luksan,** marketing manager-grain and grain products, Chicago, appointed sales manager, Cleveland.

CANADIAN NATIONAL.—**John L. Cann,** assistant general manager, Great Lakes Region, Toronto, named general manager, Prairie Region, effective Apr. 1, to succeed **Alfred Skinner,** appointed assistant vice president, highway services, Montreal.

ERIE LACKAWANNA.—**William G. Dorsey,** assistant to vice president, Cleveland, retired Feb. 1, after more than 50 years of service.

George Rushin, trainmaster, Scranton, Pa., transferred to the Marion Division, Akron, Ohio

GREAT NORTHERN.—**Bruce G. Anderson,** assistant chief engineer, system, appointed chief engineer, to succeed **George V. Guerin,** who retires March 1. **Kenneth E. Wyckoff,** assistant to chief engineer, appointed to the newly established position of assistant chief engineer—staff, St. Paul.

John T. Hall named research analyst, marketing department. He was formerly manager, forest products development, **Soo Line.**

George M. Messetler named assistant to treasurer; **Martin H. Weber,** assistant treasurer and transfer agent; **James S. Thill,** cashier, all with headquarters at St. Paul. **Robert W. Ladden** appointed cashier and transfer agent, New York.

J. L. Baldwin and **M. J. Schaal** named purchasing agent, St. Paul. **R. J. Hostetler** becomes assistant to director of purchases and materials, St. Paul. **R. O. Moncrief** and **J. C. Stayberg** appointed assistant purchasing agents, St. Paul. **W. D. Burton** named assistant purchasing agent, Seattle. **P. M. Hawkins** appointed general manager-materials, St. Paul.

POST OFFICE DEPARTMENT, BUREAU OF TRANSPORTATION.—On Feb. 8 the Senate confirmed President Johnson's nomination of **Frederick E. Batrus** as Assistant Postmaster General for Transportation. Mr. Batrus, who was Deputy Assistant Postmaster General for Transportation, succeeds **William J. Hartigan,** who resigned to return to private industry.

RAILWAY PROGRESS INSTITUTE.—**John K. Records,** president of **General Railway Signal Co.,** has been elected a member, Executive Committee, RPI.

RICHMOND, FREDERICKSBURG & POTOMAC.—**Rupert H. Rose** appointed manager freight sales, Richmond, Va. Mr. Rose was formerly district sales manager, **Seaboard Coast Line,** Jacksonville, Fla. **Paul Hendrickson,** general agent—sales, Richmond, appointed district sales manager there.

SOUTHERN.—**Earl E. Eisenhart, Jr.,** commerce counsel, and **Duncan B. Phillips,** assistant general solicitor, appointed general attorneys, Washington, D.C. **Earl M. Schramm,** formerly associated with the Washington law firm of Covington & Burling, named assistant general solicitor of the Southern.

SOUTHERN PACIFIC.—**William O. Brown,** mechanical department superintendent, Sacramento, Calif., appointed assistant chief mechanical officer-maintenance, San Francisco.

Morris E. Mitchell, assistant traffic manager of the central district, named traffic manager of the district.

John R. Oyarzo, principal assistant architect, San Francisco, appointed architect there, to replace **W. F. Meaney,** who retired Jan. 31. **George W. Fabrin** succeeds Mr Oyarzo.

UNIVERSAL CARLOADING & DISTRIBUTING CO.—**William H. Clausen** named executive vice president of this subsidiary of U.S. Freight Co. Mr. Clausen previously was vice president of Universal in charge of Western territory, at Chicago.

WESTERN WEIGHING & INSPECTION BUREAU.—**Robert C. Kniewel,** assistant manager, appointed manager, to succeed **James M. Crowell,** retired (RA, Feb. 12, p. 33). Mr. Kniewel's successor is **Edmond J. Clark.**

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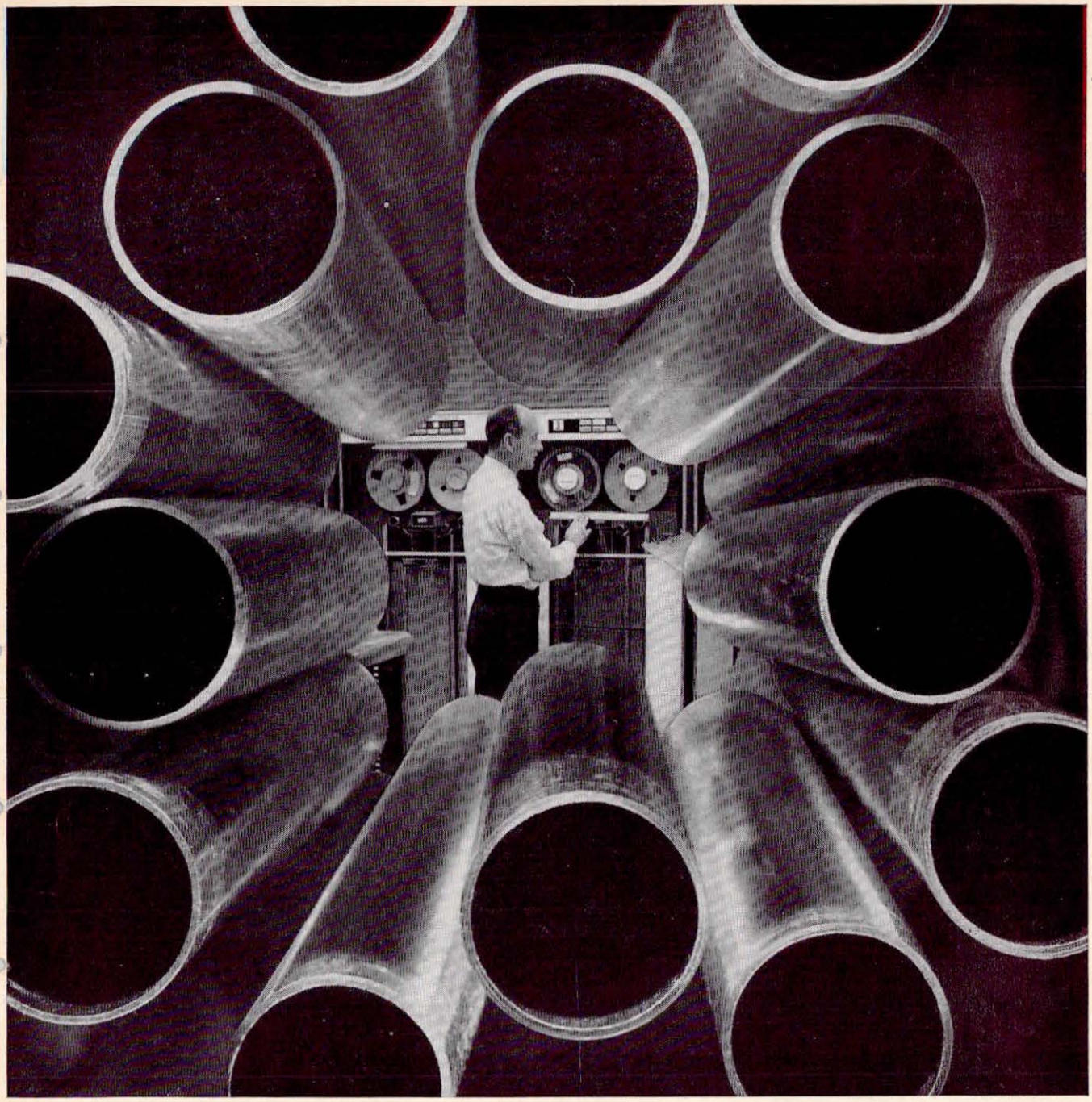

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SUPPLY TRADE

Spencer D. Moseley has been elected president and chief executive officer, **Mangood Corp.**, Chicago, to succeed **Howard Goodman**, retired. Mr. Moseley was previously president, **General American Transportation Corp.**

Louis E. Nelsen, sales engineer, **Brenco, Inc.**, promoted to district sales manager, San Francisco, Calif.

H. K. Williams appointed district sales manager, **Safety Electrical Equipment Corp.**, with headquarters at New Haven, Conn., and residence in the Philadelphia area. In addition to the Southeastern territory, Mr. Williams also will handle the Philadelphia area, formerly covered by **R. L. Hillpot**, retired.

Ralph M. Kallenbach has joined the Engineering Department of **Waugh Equipment Co.**, Chicago. Prior to joining Waugh, he was a design analyst in the Construction Equipment Division, International Harvester Co., Melrose Park, Ill.

Don L. Wilhite has been appointed sales representative for Waugh. Mr. White had been director of railroad field sales, U.S. Borax & Chemical Corp.

Fairbanks Morse—Weighing Systems Division of Colt Industries has announced assignment of three systems engineers to service the railroad industry: **R. W. Belt**, Cleveland, Ohio; **A. Meier**, St. Paul, Minn.; and **G. E. Luttrell**, Houston, Tex.

Edmund M. Grant has been appointed vice president to head the newly expanded National Steel Transportation Products Division of **National Steel Corp.**, at Chicago. **John P. McLaughlin**, former general manager—railroad sales for National Steel, has been named general manager of sales of the division at Chicago. District sales offices will be established in the western, central and eastern areas.

Robert W. Murray has been elected vice president and general counsel, **Westinghouse Air Brake Co.**, Pittsburgh, succeeding **Richard H. Wood**, who has retired from that post but continues as a consultant to corporate management. Mr. Murray joined WABCO in 1964 as an attorney.

On Feb. 1 the **St. Paul Foundry & Manufacturing Co.**, 500 Como Ave., St. Paul, Minn., changed its name to the **Maxson Corp.**

Charles E. White appointed assistant to the chief engineer for bearing products, Railroad Products Group of **Abex Corp.**, New York. He was formerly engineer of tests for brake shoes.

Robert E. Hyams appointed vice president—manufacturing, Railway Division, **Budd Co.**, Philadelphia.

William F. Lewis has been named market development manager for transportation, **Aluminum Co. of America**, Pittsburgh. He was formerly a market analyst, specializing in transportation.

Midland-Ross Corp., Cleveland, Ohio, has completed acquisition of **Unitcast Corp.** and will operate it as a division, according to **David E. Walbert**, president of M-R. **Floyd R. Brown**, president of Unitcast since 1963, has been named a vice president of M-R and general manager of the Unitcast Division.

Bryce W. Wyman has been elected general manager, Transportation Systems Division, **General Electric Co.**, with headquarters as before at Erie, Pa.

Dudley W. Field has joined **Servo Corp.** as assistant to the president and assistant treasurer, Hicksville, N.Y. He was formerly comptroller of Grumman Engineering Aircraft Corp. and president of its subsidiary, Allied Industries.

Robert E. Vey appointed a sales engineer, **Wine Railway Appliance, Unitcast Division, Midland-Ross Corp.**

INDUSTRIAL TRAFFIC

Robert A. Laurine, assistant traffic manager, **Alco Products, Inc.**, Schenectady, N.Y., has been appointed general traffic manager, succeeding **William P. Loyzelle**, who retired Jan. 1.

Ernst F. Bolten, assistant to the general traffic manager, **Reichhold Chemicals, Inc.**, White Plains, N.Y., has been appointed general traffic manager, succeeding **Wayne P. Gunns**, who retired at the end of 1967.

Stanley Cohan has been promoted to customer relations and traffic manager of **Frank & Son, Inc.**, New York.

Harry A. Sydnor has been appointed traffic manager, Cincinnati Plant, **Philip Carey Mfg. Co.**

Arthur E. Finger, Jr., traffic manager, **Nashua Corp.**, will join the Cambridge, Mass., office of **Systems Analysis & Research Corp.** on March 1.

Carl J. Lessing, vice president in charge of transportation, **Chicago Board of Trade**, has resigned, effective March 15. Mr. Lessing will open a private consulting service in the field of transportation and marketing to the grain, grain processing and transportation industries.

Max Hyder, supervisor, domestic traffic, **Abbott Laboratories**, North Chicago, Ill., has been promoted to traffic manager. He will be responsible for both domestic and export traffic.

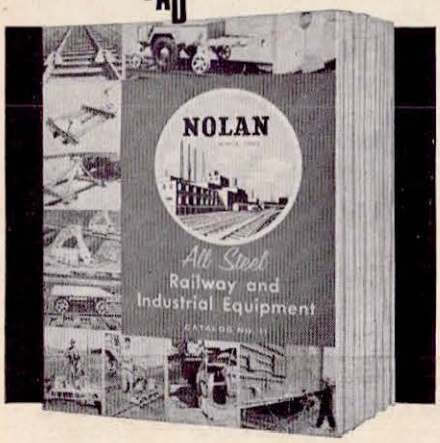
OBITUARY

Fred L. Dennis, 72, retired president and general manager, **Illinois Terminal**, died recently in St. Louis.

Ralph Posner, 48, director of sales administration, **United States Freight Co.**, New York, died Feb. 13.

Dr. John R. Winston, 59, medical director, **Santa Fe**, died Feb. 9 at his home in Chicago.

A catalog filled with work-saving railway equipment for companies with RAILROAD SIDINGS



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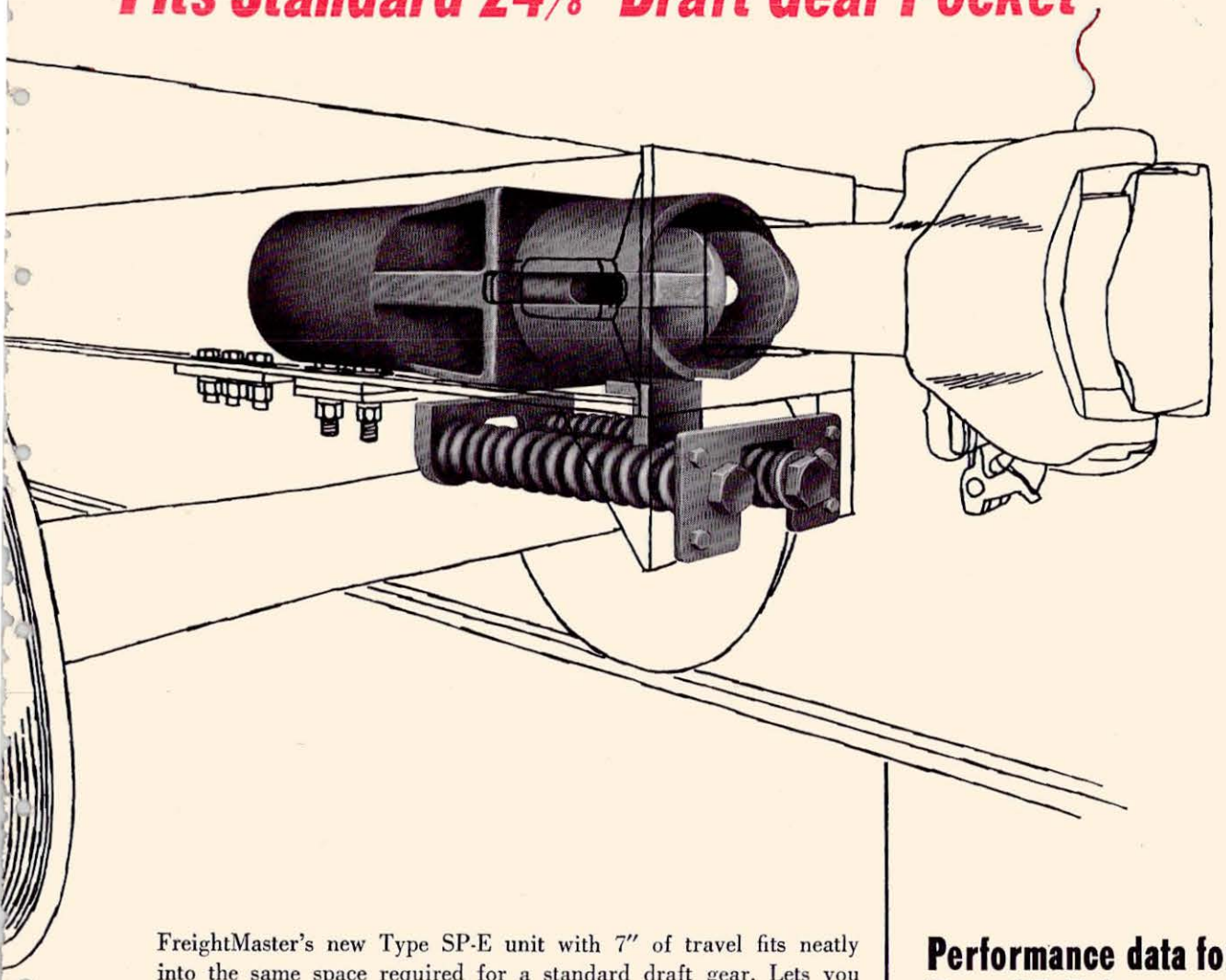

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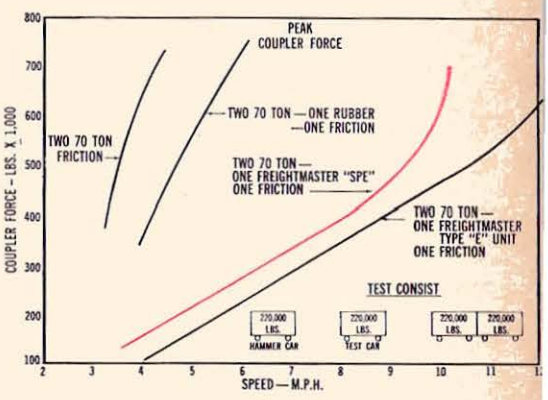
Performance data for Type SP-E demonstrates cushioning capacity



The ability of the Type SP-E to help smooth out impacts at various speeds is graphically demonstrated here. Performance data for Type E FreightMaster Unit as well as friction and rubber draft gears are shown for comparison.

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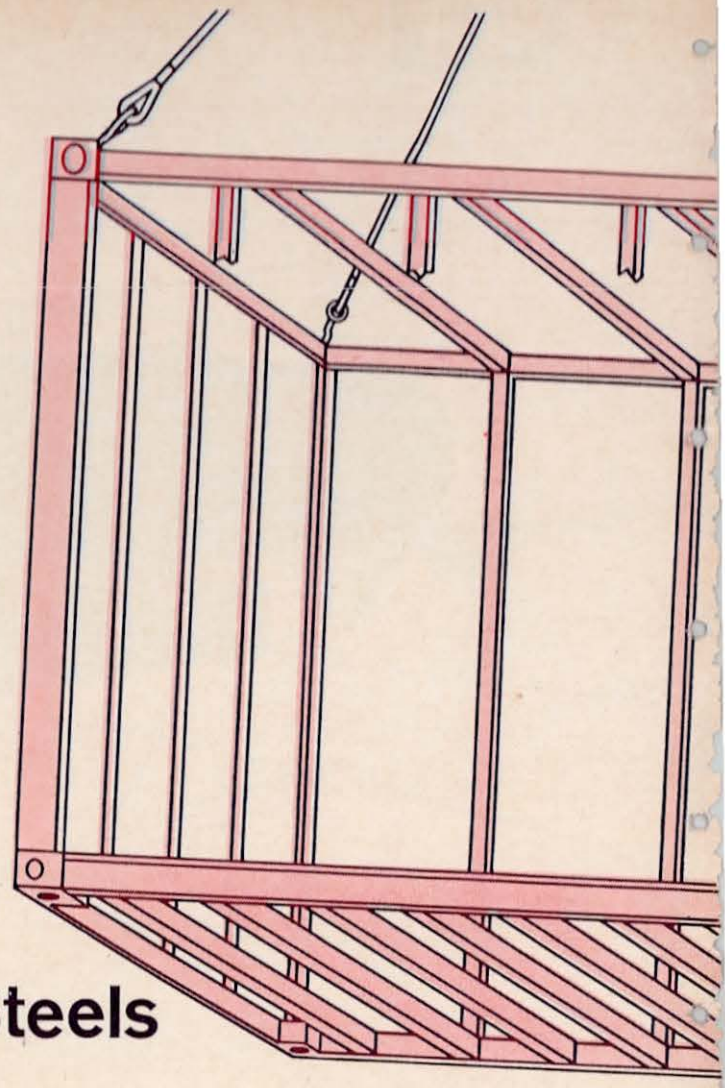
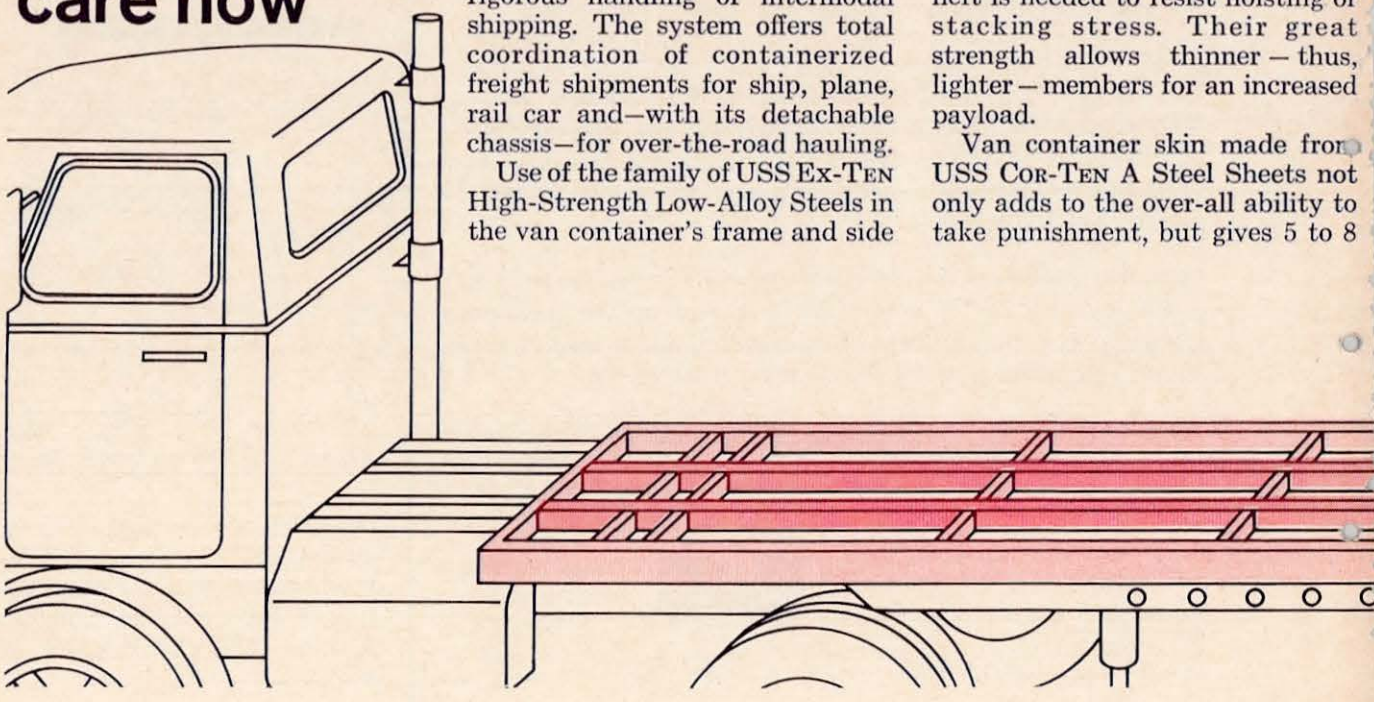


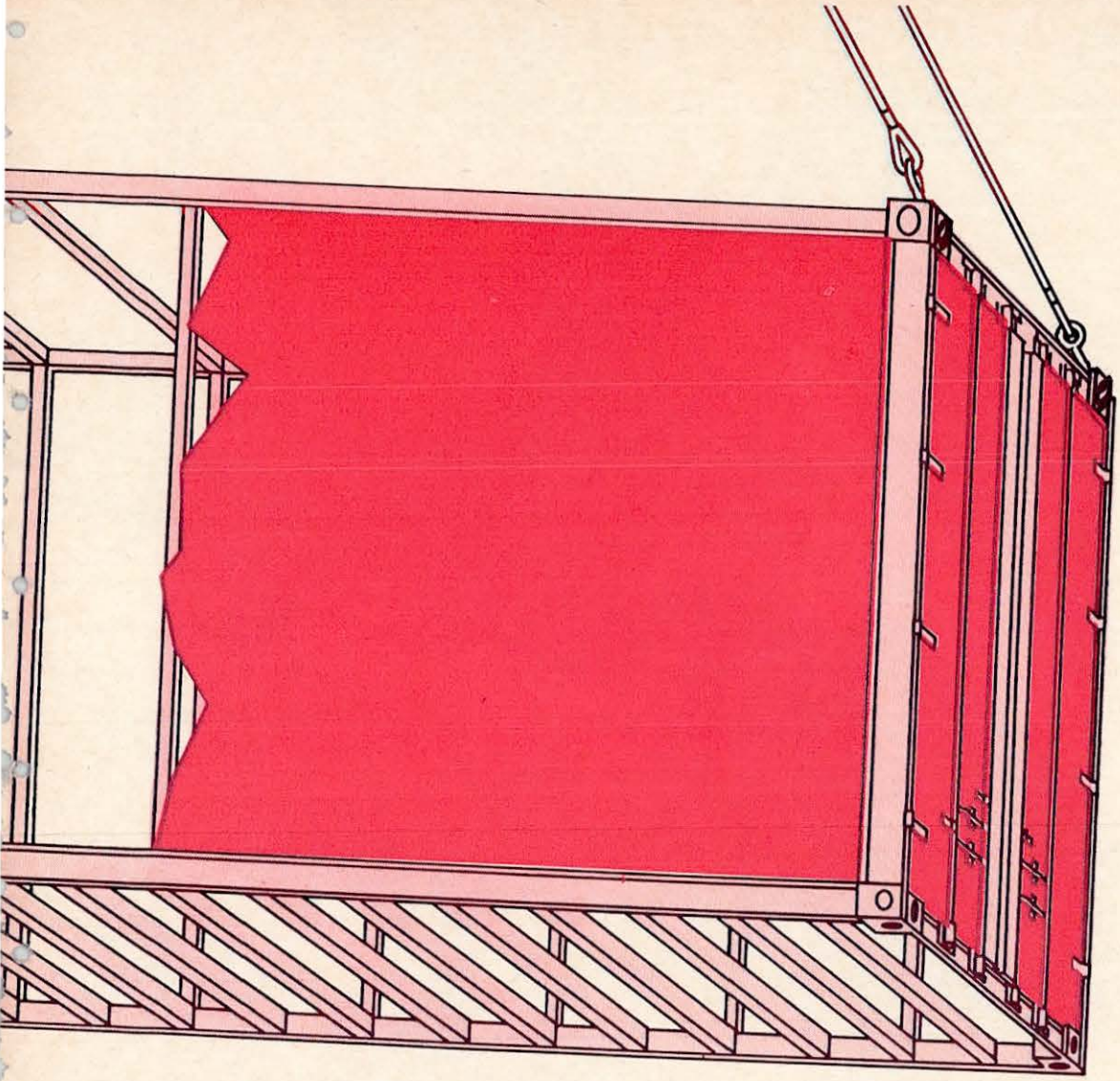
Van container of USS High Strength Steels is built to travel and doesn't care how



USS High Strength Steels give the couplable van container system the ruggedness needed to take the rigorous handling of intermodal shipping. The system offers total coordination of containerized freight shipments for ship, plane, rail car and—with its detachable chassis—for over-the-road hauling.

Use of the family of USS Ex-Ten High-Strength Low-Alloy Steels in the van container's frame and side posts provides a choice of minimum yield points from 42-to-70,000 psi, depending on load and how much heft is needed to resist hoisting or stacking stress. Their great strength allows thinner – thus, lighter – members for an increased payload.

Van container skin made from USS Cor-Ten A Steel Sheets not only adds to the over-all ability to take punishment, but gives 5 to 8



times the atmospheric corrosion resistance of carbon steel as well as improved paint adherence. Economical USS Ex-Ten Steel Sheets, the steel with the most strength for your dollar, may also be used as the skin.

Fabricate the container chassis frame from USS "T-1" Constructional Alloy Steel and USS Ex-Ten Steel members and you have an exceptionally sturdy vehicle for hauling the van container.

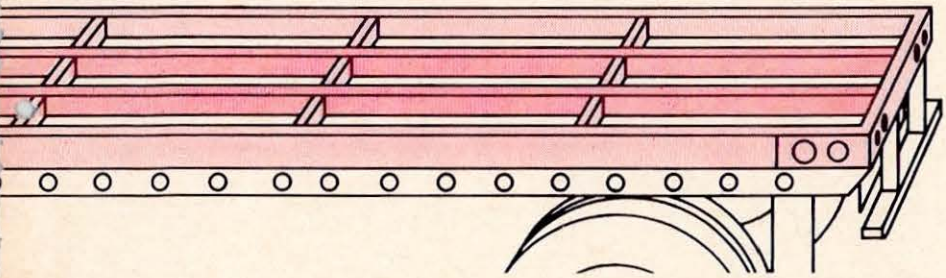
These are only a few of the big USS family from which to choose the ideal steels for building truck van containers. For help in selecting the steels you need, contact the nearest USS Sales Office, or write United States Steel, P.O. Box 86 (USS 5264) Pittsburgh, Pa. 15230. USS "T-1," Ex-Ten and Cor-Ten are registered trademarks of United States Steel.

Frame and side posts of USS Ex-Ten Steel (42,000 to 72,000 psi min. yield points)

USS Cor-Ten or Ex-Ten Steel skin

USS "T-1" Steel chassis frame, 100,000 psi min. yield strength

USS United States Steel: where the big idea is innovation



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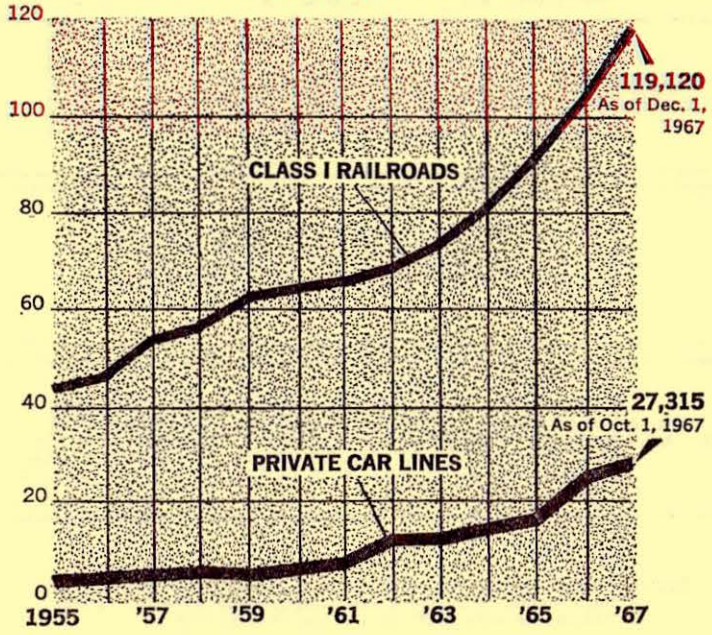
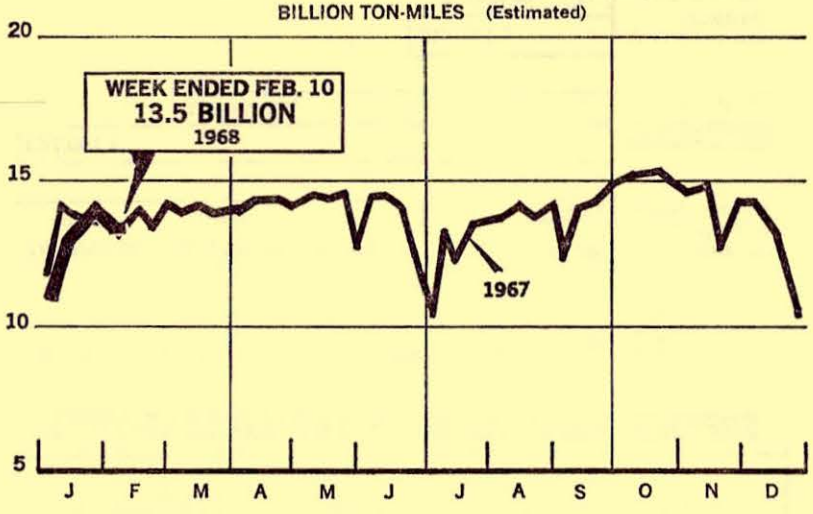
1955-1967



Association of American Railroads

RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



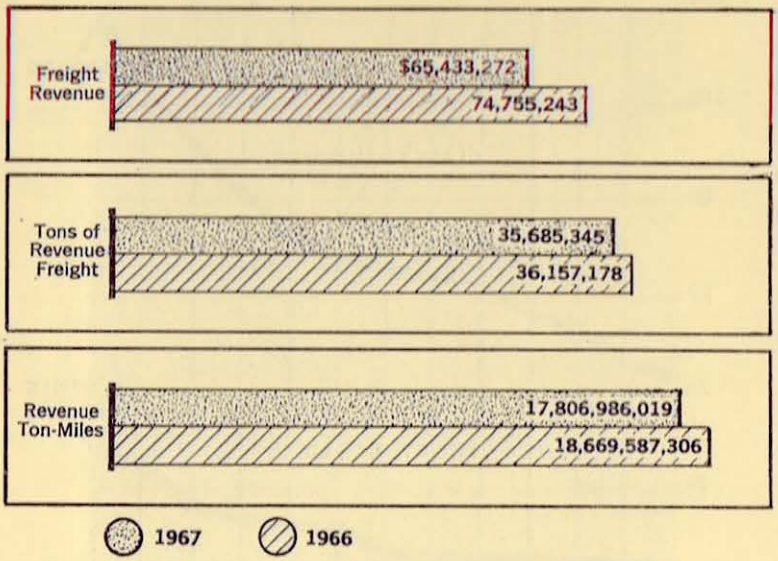
Source: Association of American Railroads

Current statistics

Net Income	
9 mos., 1967	$342,200,000
9 mos., 1966	659,900,000
Carloadings, revenue freight	
6 wks., 1968	2,941,572
6 wks., 1967	3,068,378
New freight cars on order	
Jan. 1, 1968	24,917
Jan. 1, 1967	56,440
New freight cars delivered	
12 mos., 1967	83,099
12 mos., 1966	90,104
Serviceable cars	
Jan. 1, 1968	1,405,832
Jan. 1, 1967	1,425,203

CLASS A and B WATER CARRIERS

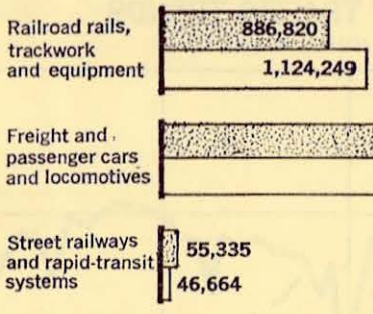
THIRD-QUARTER REVENUE AND TRAFFIC—1967 VS. 1966



Source: Bureau of Accounts, ICC. Class A and B water carriers are those having, respectively, operating revenues exceeding $500,000 and between $100,000 but less than $500,000.

SHIPMENTS OF STEEL PRODUCTS

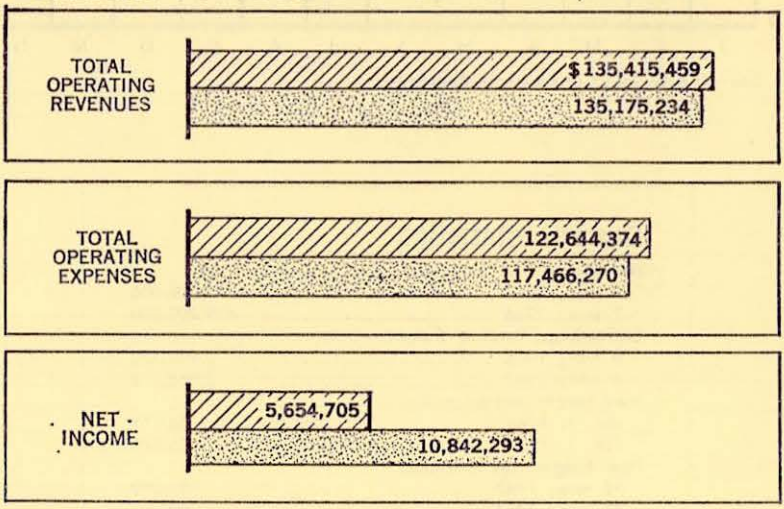
(NET TONS)



	1967*	1966
TOTAL	83,897,340	89,995,391

*Preliminary. Source: American Iron and Steel Institute.

FREIGHT FORWARDERS—SELECTED STATISTICS



Source: Bureau of Accounts, ICC. Compiled from 60 quarterly reports of forwarders with annual gross revenues of $100,000 or more.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Feb. 17 were not available as this issue of Railway Age went to press.

IN CANADA

Carloadings for the ten-day period ended Jan. 31 totaled 102,044 cars, compared with 65,244 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd. from Connections
Totals for Canada		
Jan. 31, 1968	102,044	34,631
Jan. 31, 1967	96,991	34,488
Cumulative Totals		
Jan. 31, 1968	278,339	96,997
Jan. 31, 1967	302,072	103,407

PC overhauls commuter cars

One benefit of the Penn Central merger for Philadelphia commuters will be an overhauled fleet of transit cars. Stuart T. Saunders, PC chairman, says rehabilitation of Philadelphia-area commuter cars has been under way since the merger Feb. 1. In addition, Saunders proposes a long-range, $37-million program involving local, state and federal funds for complete modernization of the metro commuter service. "Philadelphia will never get first-class rail commuter service until a long-range program is set up. In the meantime, we are going to do the best we can to keep the obsolete red car fleet running," Saunders says. The present Philadelphia fleet consists of 192 old cars and 64 modern Silverliners. Penn Central's goal is to keep 171 red cars and 57 Silverliners in service at all times to handle the 20,000-commuter rush-rour traffic. Saunders is promising cleaner, more comfortable cars, and says he hopes operating performance will improve, too. However, he adds, "many of these cars are worn out and should have been retired years ago." He says the rehabilitation program is an emergency measure only, and Penn Central can't be expected to keep the outmoded cars in service indefinitely. High maintenance costs on the cars add to operating deficits, and their poor operating performance makes it hard to attract new riders, Saunders says.

FREIGHT TRAIN CARS

• *Great Northern*—Will order 150 50-ft., 8-in. 77-ton single-sheathed box cars from Pacific Car & Foundry for delivery starting Aug. 15 as part of 1968 capital expenditures program.

• *Katy.*—Will acquire, on a long-term lease basis, 100 60-ft, 100-ton flat cars, to be built by Thrall Car for delivery beginning in April. Cars will be equipped with end-of-car cushioning.

PIGGYBACK

• *REALCO.*—Ordered 773 piggyback trailers from seven builders: Dorsey, Strick, Great Dane, Theurer, Fruehauf, Kentucky and Arrow. Included are orders for dry vans, semi-insulated vans, open-tops, flat-beds and high-cube trailers.

FOREIGN

• *Honduras National Railroad.* Purchased five additional 1,000-hp U10B diesel-electric locomotives from General Electric to complete its two-year-old dieselization program.

• *Mali.*—Is in the market for 107 railroad cars, including 79 box cars, 10 flat cars, six passenger cars and two baggage cars. Specifications are available from le Directeur General de la Regie du Chemin de Fer du Mali, Boite Postale No. 260, Bamako, Mali. Bid deadline is March 11.

NEW FACILITIES

• *Chicago Belt.*—Ordered 132 WABCO Hevi-Car Kits to upgrade retarder equipment for better speed control of cars up to 160 tons.

• *Chicago Transit Authority.*—Remaining contracts to be let as part of the $15.6 million capital spending program in 1968: include air conditioning of 114 Series-6000 rapid-transit cars. Fixed-property expenditures will include $2,052,000 for improvements to rapid-transit track and structures; $1,417,000 for construction of rapid-transit offices, shops and stations; $1,378,000 for sub-station conversion work; and $919,000 for improvements to surface-system facilities.

• *Illinois Central.*—Ordered a four-wire common control Motorswitch system from Stromberg-Carlson Corp., for installation at Fulton, Ky., midpoint of Chicago-New Orleans mainline.

• *Penn Central.*—Contracted GRS for System 4,000 electronic code equipment to control 30 locations over 200 miles between Union, N.Y., and Lock Haven, Pa.. with a GRS "Traffic Master" pushbutton control console at Williamsport, Pa. Contract also includes coded track circuits and Model 55 switch machines.

• *Union Pacific.*—Ordered 35 sets of WABCO Type El Cab Signal Equipment for diesel-electric locomotives.

YOU OUGHT TO KNOW

Intercity passenger trains: 20,000 in '29, 650 in '68

How severe was the blow dealt to passenger-train service by the cancellation of mail contracts last year? The National Association of Railroad Passengers (a band of save-the-train enthusiasts headed by Anthony Haswell) studied the situation and last week came up with some sobering figures. Some 75 intercity passenger trains were abandoned between July and Dec. 31 in 1967, and applications for discontinuance of 108 more trains were pending on Jan. 1, according to NARP figures. These abandonments cut the number of intercity passenger runs throughout the nation to 650, compared with some 20,000 in 1929, reported Executive Director Haswell. He noted that "this rash of abandonments and applications to drop service follows on the heels of the U.S. Post Office Department's widespread cancellation of railway mail contracts."

Big-truck bill is "anti-safe," says the AAA

The American Automobile Association last week gave the label, "anti-safety measure," to a pending Congressional bill for bigger and heavier trucks on Interstate highways (RA, Feb. 12, p. 29). AAA warned the bill could make I-route travel hazardous enough to force passenger car drivers onto roads not used by trucks. Another reason for AAA opposition is that about 70% of the nation's highway bridges "probably" aren't designed to carry such loads. Also, the bill has no provision for a minimum weight/horsepower ratio. And without that ratio, there would be trucks with "no more getaway or hill-climbing ability than you might expect in a Cadillac powered by a Volkswagen engine," says George F. Kachlein, Jr., AAA executive vice president.

IC, UP deny control allegation

Missouri Pacific wants an ICC investigation to determine, in part, whether Union Pacific controls Illinois Central. In separate replies, UP and IC deny that any such situation exists; and they're asking the Commission to dismiss MoPac's complaint. MoPac filed its petition late last year (RA, Nov. 27, p. 11), as merger talks involving IC and Gulf, Mobile & Ohio moved ahead, and as purchases of Frisco stock by IC and GM&O were made known. In their replies, UP and IC say that no control relationship exists, either through UP's 23.5% interest in Illinois Central Industries or through any other means. Both roads also charged that MoPac's aim is delay, in the context of current merger proceedings. MP, however, had argued initially that the control questions raised have a direct bearing on the western merger situation.

PC partners connect tracks at Buffalo

The first Buffalo-area connection for Penn Central partners is expected to be completed early in March. The $50,000 project includes grading of 2,600 cubic yards of earth to form roadbed for 1,130 feet of track to link the NYC Gardenville branch and the Pennsy West Seneca branch at Blasdell, N.Y.

GTW hoists tower, secures network ship-to-shore

Grand Trunk Western recently hoisted into place the last section of a 158-foot radio tower at its Muskegon, Mich., office for car-ferry operations. The tower will permit GTW's three Lake Michigan freight-car ferries (RA, Dec. 11, 1967, p. 40) to maintain fulltime communication with ports at Muskegon and Milwaukee. Operating on a clear channel over an exclusive frequency, the network will speed car tracing operations.

Truck tonnage drops 1.1% for the week

Intercity truck tonnage in the week ended Feb. 10 was 1.1% below that of the previous week, and 7% above the volume in the corresponding week of 1967, according to American Trucking Associations.

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VIEWPOINT

Where does railroad technology come from?

For years, the railway supply business has had many of the aspects of a medium-to-high-risk operation. Notoriously, railroads bought during good times—and their suppliers suffered along with them when times weren't so good. Notoriously, railroads were a troubled industry, with fierce competition growing fiercer.

Railway suppliers are businessmen. They've had to be good ones, to survive and prosper to the extent they have. But good businessmen don't invest the stockholders' money on faith alone—so, obviously, rail-based transportation systems must have quite a bit in their favor, judging from (1) the recent new investments in facilities made by old-line suppliers, and (2) the entry of what might be referred to as alien technologies into railroading.

The instant case-in-point, of course, is Ford Motor Company, which may well become supplier for the auto-train demonstration project. Now, Ford is no stranger to the railroad business. Henry Ford once had a railroad, the Detroit, Toledo & Ironton, during the 1920s. And nobody who was in on development of either the auto-rack cars or the high-cube auto-parts cars needs any introduction to his successors in Dearborn.

But, for Ford, why this particular area of rail-based systems?

A simple answer would seem to be that Ford, with a competently-staffed office of transportation research and planning, is on its way to becoming a "transportation" company. A complex answer, some would say, has to do with the whole nature of technological development and the railroads. And this "whole nature" has to do with the structure of the railroad industry—in particular, its financial structure and the ways in which dollars work.

IS THERE NO INCENTIVE INSIDE THE INDUSTRY?

The arguments, generally, are based on the theory that technological innovators within the industry have comparatively little incentive, mainly because of the barriers to their realizing significant profit. Innovators on the outside, however, aren't operating under the same restrictions—and, therefore, major technological advances come from the peripheral business which has grown up over the years as the railway supply industry.

Those who adopt these arguments contend that a railroad's structure makes it more beholden to the debtholder than to the shareholder, that both the railroad unions and the omnipresent tax collector have also been able to exert prior claims to profits in most effective fashion. The result, so the arguments go, is that railroads operate, others innovate.

One further point might be made—but it's so often overlooked: Only on occasion do railroads have the required initiating funds, uncommitted, with which they might do the kind of experimentation involved in, for instance, something like auto-train.

Perhaps, sometimes, the origins of railroad technology are a bit strange. Darwin, today, might forget the evolution of man, if he could interest himself in the evolution of progress on the railroads. But there's one thing that has to be said for the system, by whatever name it's called: It does seem to be working.

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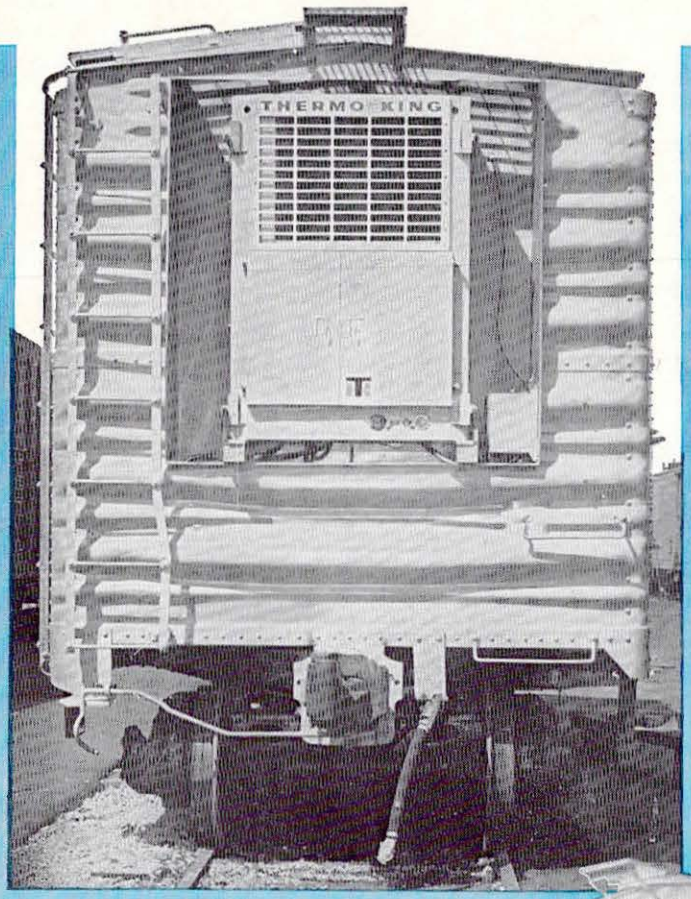

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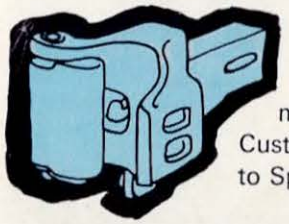

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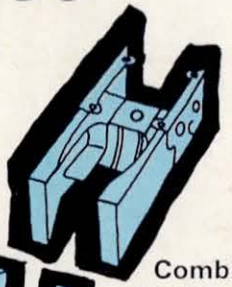
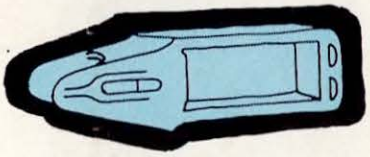
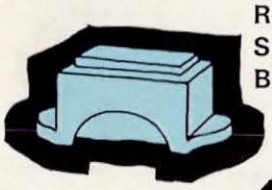


Truck Spring Snubbers



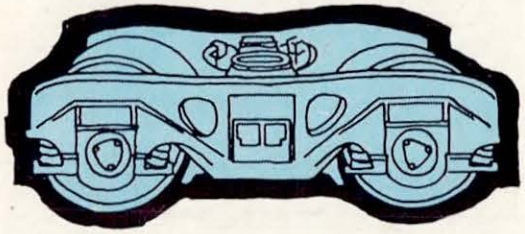
A.A.R. Standard Yokes

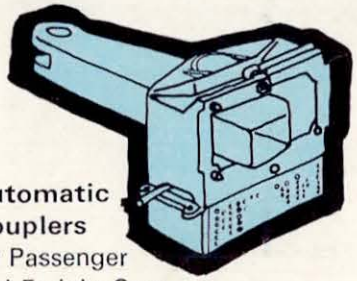
Combined Striker Castings and Front Draft Lugs



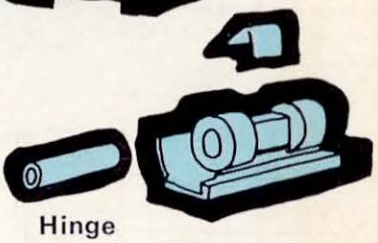
Resilient Side Bearings

Symington Trucks
Standard A.A.R. and XL High Speed models





Automatic Couplers
for Passenger and Freight Cars



Hinge Lug Wear Plate and "Self-Adjusting Bushing"

Details and Specifications on all products available on request

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